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A Type Catalog of Fossil Invertebrates (Mollusca: Bivalvia and Rostroconchia) in the Yale Peabody Museum

Russell D. White

Laura K. Skorina

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A Type Catalog of Fossil Invertebrates (Mollusca: Bivalvia and Rostroconchia) in the Yale Peabody Museum

Russell D. White

Laura K. Skorina

(Received 29 August 1999)

Abstract

Type material for 60 nominal species of fossil bivalves and rostroconchs is in the Invertebrate Paleontology Collections of Yale University's Peabody Museum of Natural History. Primary types for 46 nominal species include 41 holotypes, and 5 syntypes (representing 3 nominal species). Secondary types for 15 nominal species include 31 paratypes. Tertiary types of 19 nominal species include 35 hypotypes. Most types are from Kansas, Michigan, New York State, Pennsylvania, South Dakota, and Peru, and have been described by G.A. Cooper, A.L. McAlester, E.T. Nelson, N.D. Newell, J. Pojeta, P.E. Raymond, and I.G. Speden.

Key Words

Type Catalog, Bivalvia, Rostroconchia, Yale Peabody Museum, Kansas, Michigan, New York State, Pennsylvania, South Dakota, Peru, P. Bretsky, G.A. Cooper, A.L. McAlester, E.T. Nelson, N.D. Newell, J. Pojeta, Jr., P.E. Raymond, I.G. Speden.

Introduction

This catalog lists all known fossil bivalve and rostroconch types in the Invertebrate Paleontology Collections housed in Yale University's Peabody Museum of Natural History. This is the fourteenth in a series of type catalogs of fossil invertebrates and is a product of an ongoing computerization project to improve the accessibility of the type collections.

Forty-five type specimens are missing and cannot be located. The collections have been thoroughly searched by the curatorial staff in the 1960s and 1990s, and it is believed that these specimens are permanently lost. Missing specimens are indicated with a footnote, and any information on their whereabouts would be greatly appreciated.

Organization

Specimens are listed under the originally described binomen; genera and species within genera are indexed alphabetically. Each entry includes the catalog number

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used by the Division of Invertebrate Paleontology prefixed with the abbreviation YPM and the type status of the original designation, followed by all known references to that specimen. Any subsequent designations are listed under the original designation and are cross-referenced in the body of the text. Locality descriptions follow each entry or set of entries for each binomen. Errors and inconsistencies are footnoted at the bottom of each binomen.

The type designations used are holotype and syntype for name bearers; paratype for secondary types; hypotype is used for all tertiary types. Name bearers and secondary types are defined as used in the *International Code of Zoological Nomenclature* (ICZN 1985). Tertiary types or hypotypes are treated here as any described, figured or measured specimen used in a publication to augment the knowledge of a previously defined species, any specimens used in an original species description but not explicitly designated primary or secondary types, or any referenced specimen that cannot be placed unequivocally in a known species (e.g., *Leiopteria* sp.).

Locality descriptions follow each entry or set of entries with identical locality data. The locality information includes the stratigraphy, geography, collector and date. Stratigraphy has been standardized using *Stratigraphic Nomenclature Databases for the United States, its Possessions and Territories* (MacLachlan et al. 1992). Township and range coordinates (e.g., NW NE sec 11 T21N R24E) are used to described the geographic position of some localities (Van Zandt 1976).

Catalog of Bivalvia

***Acanthopecten carboniferous* (Stevens)**

HYPOTYPE YPM 25686

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.72, pl.12, f.8a.

Pennsylvanian, Centralia Fm. Crooked Creek, near Centralia, Marion Co., Illinois, USA. Collector: Weller, J.M.

***Acanthopecten coloradoensis* (Newberry)**

HYPOTYPE YPM 14473

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.75, tbl.(p.75,#2), pl.12, f.15a,15b.

Early Permian, Kaibab Limestone. Arden, Las Vegas Quad., Clark Co., Nevada, USA. Collector: Longwell, C.R.

HYPOTYPE YPM 14474

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.75, tbl.(p.75,#2).

Early Permian, Kaibab Limestone. Bass Ranch, Grand Canyon, Mohave Co., Arizona, USA. Collector: Noble, L.F.

CAST OF HYPOTYPE YPM 25685[a]

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.75, pl.12, f.13.

Early Permian, Kaibab Limestone. Probably Kaibab Limestone, mouth of Little Colorado River, "New Mexico", now Arizona [Arizona was not separated from New Mexico until 1863], Coconino Co., Arizona, USA.

[a]YPM 25685 is a cast. The original specimen is Columbia University 14203.

***Acanthopecten meeki* Newell**

HOLOTYPE YPM 8148A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.73, tbl.(p.74,#1), pl.12, f.2a,2b.

PARATYPE YPM 8148B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.73, tbl.(p.74,#2).

PARATYPE YPM 8148C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.73, tbl.(p.74,#4).

PARATYPE YPM 8148D

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.73, tbl.(p.74,#3).

Pennsylvanian. Kansas City, Missouri, USA.

PARATYPE YPM 14471A–14471D

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.73.

PARATYPE YPM 14472

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.73.

Late Pennsylvanian, Cherryvale Fm, Westerville Limestone Mbr. Turner, Wyandotte Co., Kansas, USA.

***Acanthopecten* sp.**

HYPOTYPE YPM 14489

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, pl.12, f.6a,6b.

Middle Pennsylvanian, Strawn Grp. 350 ft below top of Strawn, Mineral Wells, Palo Pinto Co., Texas, USA. Collector: Schuchert, C., 1919.

***Acila banquereauensis* Stephenson**

HOLOTYPE YPM 14804

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.387, pl.3, f.12,13.

PARATYPE YPM 14805

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.387, pl.3, f.14.

PARATYPE YPM 14806[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.387.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

This specimen lot is represented by 2 individuals, although Stephenson (1936) cites 4.

***Actinodesma* (*Actinodesma*) *erectum* (Conrad)**

HYPOTYPE YPM 38423

Carter, J.G. and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, p.868, tf.17A.[a]

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.333.[a]

HYPOTYPE YPM 38424

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.333.[a]

HYPOTYPE YPM 38426

Carter, J.G. and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, p.868, tf.17B,C.[b]

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.333.[b]

Middle Devonian, Hamilton Grp, Skaneateles Shale, Delphi Station Mbr. N of Hamilton, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with Invertebrate Zoology catalog number YPM 10227.

[b]Cited with Invertebrate Zoology catalog number YPM 10231–3.

***Actinopteria boydi* (Conrad)**

HYPOTYPE YPM 21357

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.27, pl.3, f.26.

Late Devonian, Chemungian. Glory Mountain, Waverly, Tioga Co., New York, USA. Collector: Leith, E.I., 1931.

HYPOTYPE YPM 75595, 75596[a]

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.27.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Actinopteria* sp. A**

HYPOTYPE YPM 21353

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.28, pl.3, f.21,22.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA.

Collector: McAlester, A.L., 6/21/1957.

***Actinopteria textilis* (Hall)**

HOLOTYPE YPM 26717

Ohern, D.W. and T.P. Maynard. 1913. Maryland Geol. Surv. p.456, pl.76, f.5.

Early Devonian, Helderberg Fm, New Scotland Mbr. Cumberland, Allegany Co., Maryland, USA. Collector: Roeder, G.M.

***Actinopteria*? sp. B**

HYPOTYPE YPM 21354

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.3, f.23.

HYPOTYPE YPM 21355

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.3, f.24.

HYPOTYPE YPM 75602, 75603

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29.

Middle Devonian, Chemungian. Base of 20-ft mudstone, middle upper Chemung, in creek bed at 1st bridge, 0.4 mi W of US Hwy 15 along unimproved road, on Morgan Creek, W of Lindley, Steuben Co., New York, USA. Collector: McAlester, A.L., 8/16/1958.

***Adranaria tromelini* Munier-Chalmas**

LECTOTYPE YPM 24278

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.15, pl.32, f.6.[a]

Ordovician. Gres [sandstone] a *Lyrodesma gallica,* La Bouxiere en Liffre, near Rennes, Brittany, France. Collector: McAlester, A.L.

[a]Pl.32, f.6 is a latex cast of the actual specimen, which is at the Université de Paris.

***Allonychia*? *brevirostris* Leith**

SYNTYPE YPM 15316A

Leith, E.I. 1938. Am. J. Sci. v.236, p.343, f.1,4.

SYNTYPE YPM 15316B

Leith, E.I. 1938. Am. J. Sci. v.236, p.343, f.3.

Ordovician, Caparo-Bellavista series. First hill outside the Caparro River floodplain, about 3/4 mi S of the river along the trail between Santa Barbara and Mucuchachi, Andes Mountains, Venezuela. Collector: Terry, R.A.

***Allorisma*? *albequus* Beede**

HYPOTYPE YPM 16327

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.296, pl.2, f.22.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, section 43, block 19, H.G. & N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Ambonychia byrnesi* (Ulrich)**

HYPOTYPE YPM 26038

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.123, pl.38, f.3.

Late Ordovician, Reedsville Fm. Muddy siltstone, railroad cut 1.0 mi SE of Tyrone, a few hundred yards S of PA Rt. 350, Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

***Ambonychia* cf. *gaspeensis* Northrop**

HYPOTYPE YPM 13342

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.200, pl.18, f.6.

Middle Silurian, Niagaran, Indian Point Fm. Eastern portion (higher in section), shore at Indian Point, Quebec, Canada. Collector: Northrop, S.A., 1927.

***Ambonychia cultrata* (Ulrich)**

HYPOTYPE YPM 26052

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.122, pl.42, f.1.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 1.0 mi S of Rockdell, along VA Primary Rt. 80, Clinch Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26053

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.122, pl.42, f.2.

Late Ordovician, Reedsville Fm. Sandstone and common phosphate nodules, roadcut 1.5 mi S of Rocky Gap, along US Rts. 21 and 52, Wolf Creek Mountain, Bland Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26056

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.122, pl.43, f.1,2.

HYPOTYPE YPM 26057

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.122, pl.43, f.3.
HYPOTYPE YPM 26058

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.122, pl.43, f.4.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 3.5 mi NW of Pattonsville, along US Rts. 421 and 58, Powell Mountain, Lee Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

***Ambonychia curvata* Raymond**
See *Ambonychia*? *curvata* Raymond.

***Ambonychia*? *curvata* Raymond**

SYNTYPE YPM 7987

Raymond, P.E. 1905. Am. J. Sci. v.170, p.373.[a]

=*Ambonychia curvata*. Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.335, pl.29, f.27,28.[b]

SYNTYPE YPM 26920

Raymond, P.E. 1905. Am. J. Sci. v.170, p.373.

=*Ambonychia curvata*. Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.335, pl.30, f.3.[b, c]

Middle Ordovician. Sloop Island, E of Valcour Island, Clinton Co., New York, USA. Collector: Raymond, P.E., 1903.

[a]Labeled as a paratype of *Ambonychia*? *curvata* Raymond, although it was neither mentioned nor figured in the original description.

[b]Cited as *Ambonychia*? *curvata* in the plate description.

[c]Described as a cotype of *Ambonychia*? *curvata* Raymond, although it was neither mentioned nor figured in the original description.

***Ambonychia gaspeensis* Northrop**

HOLOTYPE YPM 13344

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.200, pl.18, f.5.

Middle Silurian, Niagaran, Indian Point Fm. Eastern portion (higher in section), shore at Indian Point, Quebec, Canada. Collector: Northrop, S.A., 1927.

***Ambonychia*? *parksi* Northrop**

HOLOTYPE YPM 13332

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.201, pl.19, f.6.

Middle Silurian, Niagaran, Indian Point Fm. Eastern portion (higher in section), shore at Indian Point, Quebec, Canada. Collector: Northrop, S.A., 1927.

***Ambonychia praecursa* (Ulrich)**

HYPOTYPE YPM 26037

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.38, f.1,2.

Late Ordovician, Reedsville Fm. Originally stained sandstone, biogenic reworking, roadcut 4.5 mi S of Loysburg, along PA Rt. 36, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26039

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.38, f.4.

Late Ordovician, Reedsville Fm. Sandstone and shale, organically stained, roadcut 2.0 mi E of Catawba, along VA Primary Rt. 311, Catawba Mountain, Roanoke Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26040

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.38, f.5.

Late Ordovician, Reedsville Fm. Muddy siltstone, railroad cut 1.0 mi SE of Tyrone, a few hundred yards S of PA Rt. 350, Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26041

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.39, f.1.

Late Ordovician, Reedsville Fm. Sandstone, biogenic reworking, organic staining, roadcut at junction of two unmarked, paved roads a few hundred yards E of Sulfur Springs, western limb of Wills Mountain, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26042

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.39, f.2.

Late Ordovician, Martinsburg Fm. Muddy siltstone and sandstone, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26043

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.39, f.3.

HYPOTYPE YPM 26044

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat.

Hist. n.34, p.118, pl.39, f.4.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26045

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.40, f.1.

Late Ordovician, Reedsville Fm. Muddy siltstone, railroad cut 1.0 mi SE of Tyrone, a few hundred yards S of PA Rt. 350, Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26046

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.40, f.2.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26047

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.40, f.3.

Late Ordovician, Reedsville Fm. Roadcut about 12 mi W of Franklin, along US Rt. 33, West Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26048

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.40, f.4.

Late Ordovician, Martinsburg Fm. Mudstone, muddy siltstone, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26049

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.41, f.1.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26050

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.41, f.2.

HYPOTYPE YPM 26051

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.41, f.3.

Late Ordovician, Reedsville Fm. Muddy siltstone, railroad cut 1.0 mi SE of Tyrone, a few hundred yards S of PA Rt. 350, Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26054

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.42, f.3.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, massively bedded, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26055

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.118, pl.42, f.4.

HYPOTYPE YPM 26065B

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, pl.2.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

Ambonychia radiata Hall

HYPOTYPE YPM 26027

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.117, pl.36, f.1.

Late Ordovician, Reedsville Fm. Interbedded muddy siltstone and ferruginous sandstone, 85-100 ft section, roadcut about 1.0 mi SE of Reedsville, along US Rt. 322, Mifflin Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26028

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.117, pl.36, f.2.

Late Ordovician, Reedsville Fm. Shale and muddy siltstone, thin beds of organically stained ferruginous sandstone, roadcut less than 3.0 mi N of Elberta, along Elberta-Culp road [roadcut a few hundred yards S of loc. 77], Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26029

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.117, pl.36, f.3.

Late Ordovician, Reedsville Fm. Muddy siltstone,

organic stains and phosphate nodules, 2 distinct fossil assemblages, *Tancrediopsis* and *Plectonotus* with phosphate nodules and near contact with overlying Bald Mountain sandstone, roadcut at Brumbaugh, at junction of PA Rts. 867 and 869, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26030

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.117, pl.36, f.4.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 0.5 mi N of Bastress, along PA Rt. 654, Lycoming Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

HYPOTYPE YPM 26031

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.117, pl.36, f.5,6.

Late Ordovician, Reedsville Fm. Muddy siltstone, railroad cut 1.0 mi SE of Tyrone, a few hundred yards S of PA Rt. 350, Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

***Amiantis incrassata ovoidalis* Sacco**

HYPOTYPE YPM 570

Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.146, pl.9, f.5.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Amphicoelia leidyi* Hall**

HYPOTYPE YPM 13335

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.200, pl.18, f.8.

Pojeta, J., Jr. 1968. J. Paleont. v.42, n.5, p.1256.

Quaternary, Pleistocene. Drift, loose block of Bouleaux, railroad cut at W end of Anse-a-la-Barbe trestle, Quebec, Canada. Collector: Northrop, S.A., 1927.

***Ancylus rivularis* Say**

HYPOTYPE YPM 12837

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.246, pl.4, f.15.

Quaternary, Recent. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Hunt, C.B.

***Anisotechnophorus nuculitiformis* (Cleland)**

HYPOTYPE YPM 28680

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.60, pl.18, f.7-10.

HYPOTYPE YPM 28681

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.60, pl.18, f.17.

HYPOTYPE YPM 28682

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.60, pl.18, f.14.

HYPOTYPE YPM 28683

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.60, pl.18, f.11-12.

Late Cambrian, Little Falls Dolomite. Fort Hunter, Albany Co., New York, USA. Collector: Cleland, H.F.

***Anomalodonta gigantea* Miller**

HYPOTYPE YPM 23323

Pojeta, J., Jr. 1966. Palaeont. Am. v.5, n.36, p.170, pl.27, f.7-9.

HYPOTYPE YPM 23324

Pojeta, J., Jr. 1966. Palaeont. Am. v.5, n.36, p.70, pl.28, f.1-3.

HYPOTYPE YPM 23325

Pojeta, J., Jr. 1966. Palaeont. Am. v.5, n.36, p.170, tf.I-2, pl.28, f. 4-8.

Late Ordovician, Hudson River Grp. Versailles, Ripley Co., Indiana, USA. Collector: Braun-Schuchert Collection.

***Anomia gryphorhyncha* Meek**

HYPOTYPE YPM 24097

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.88, pl.18, f.17,22.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, bluffs of Beaver Creek and tributaries, Seeman Park, 1 mi SE of Linton, Strasburg Quad., along section line CENTER N EDGE N NE sec20T132NR76W, along section line CENTER S EDGE S SE sec17Y132NR76W, Emmons Co., North Dakota, USA. Collector: Waage, K.M., 1956.

HYPOTYPE YPM 24098

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.88, pl.18, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, SW-facing bluff about 700 ft SE of Peabody Locality C0010, Whitehorse Ridge, and 4.5 mi NW of Whitehorse, Whitehorse Quad., NW NW SE sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24099

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.88, pl.18, f.16.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* Concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Gervillia* concretions, small slump blocks in lower bluffs on either side of S-draining draw, 0.5 mi due N of Mortonson Ranch house, and 5.5 mi WSW of Little Eagle, Little Eagle NW Quad., E NE sec33T20NR26E, W SIDE NW sec34T20NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24100

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.88, pl.18, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 13, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24101

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.88, pl.18, f.10.

HYPOTYPE YPM 24102

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.88, pl.18, f.13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster beds and shell conglomerates, caprocks of the 3 buttes at Dog Butte, within 0.4 mi N of county road, and about 5 mi due E of Timber Lake, Glencross Quad., CENTER S S sec18T17NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and others, 1957 to 1962.

HYPOTYPE YPM 24103

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.88, pl.18, f.11.

Late Cretaceous, Maastrichtian, lower Hell Creek Fm. Base of unit 9 of 1961 section, "oyster" concretion layer in lowermost Hell Creek, W-facing bluff at sharp bend on Moreau River, and 5.5 mi WNW of Iron Lightning, Redelm NW Quad., SE CORNER sec6T14NR18E, NE CORNER sec7T14NR18E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961 to 1962.

HYPOTYPE YPM 24104

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.88, pl.18, f.9,14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Bullhead Lithofacies. Shell bed in roadside gutter at foot of slope below oyster beds, butte on E side of Bullhead-Walker county road, and 2.75 mi NNW of Bullhead, Bullhead Quad., CENTER E NW NE sec11T21NR24E, Corson Co., South Dakota, USA. Collector: Podwell, R.A. and Speden, E.W., 1962.

[a]Pl.18, f.16 should be *Limopsis-Gervillia* AZ (not Lower *nicolleti* AZ as stated).

Anomia sp. ind.

HYPOTYPE YPM 575, 31665, 31677–31683

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.206.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

Aphrodina marina Stephenson

HOLOTYPE YPM 14826

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.393, pl.4, f.9,10.

PARATYPE YPM 14827

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.393, pl.4, f.11.

PARATYPE YPM 14828A, 14828B

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.393, pl.4, f.12.

PARATYPE YPM 14829[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.393.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.
[a]This specimen lot is represented by 9 individuals, although Stephenson (1936) cites 11.

***Arca* (*Cunearca*) *zorritense* Spieker**
See *Scapharca* sp. ind.

***Arca larkinii* Nelson**

SYNTYPE YPM 571

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.204, pl.7, f.5.

=*Arca* (*Scapharca*?) *larkinii*. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.111.

SYNTYPE YPM 31691–31699

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.204.

=*Arca* (*Scapharca*?) *larkinii*. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.111.

SYNTYPE YPM 31772

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.204, pl.7, f.6.

=*Arca* (*Scapharca*?) *larkinii*. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.111, pl.5, f.16-18.

SYNTYPE YPM 31773

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.204, pl.7, f.7.

=*Arca* (*Scapharca*?) *larkinii*. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.111.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Arca* (*Scapharca*?) *larkinii* Nelson**
See *Arca larkinii* Nelson.

***Arca* sp.**

HYPOTYPE YPM 28485

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Eocene, Nanfalia Fm. *Ostea thirsae* zone in Nanfalia Fm on dirt road about 1 mi S of AL Hwy 10, and about 0.5 mi W of the Crenshaw-Butler county line, Butler Co., Alabama, USA. Collector: Dunbar, C.O., 2/4/1966.

[a]Part of specimen missing.

***Arca transversa* Say**

HYPOTYPE YPM 25679

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, tf.5,6.

Holocene. Woods Hole Laboratories, Woods Hole, Barnstable Co., Massachusetts, USA.

***Arisaigia postornata* McLearn**

PARATYPE YPM 24284

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17, pl.27, f.6.

PARATYPE YPM 24285

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17, pl.27, f.2.

PARATYPE YPM 24286

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17, pl.27, f.8.

PARATYPE YPM 24287

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17, pl.27, f.5.

PARATYPE YPM 24288

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17, pl.27, f.4.

Late Silurian, McAdam Fm. Zone c of McLearn, along shore, between the point at the E side of McDonald's Cove and McAdam Brook, SW of Arisaig Point, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

PARATYPE YPM 24289

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17, pl.27, f.9,10.

PARATYPE YPM 24290

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17, pl.27, f.3.

Late Silurian, McAdam Fm. Zone b of McLearn, along shore, between Black Point and Smith Brook, SW of Arisaig Point, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

PARATYPE YPM 24291–24294

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17.

Late Silurian, McAdam Fm. Zone c of McLearn, along shore, between the point at the E side of McDonald's Cove and McAdam Brook, SW of Arisaig Point, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

PARATYPE YPM 24295, 24296

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17.

Late Silurian, McAdam Fm. Zone b of McLearn, along shore, between Black Point and Smith Brook, SW of Arisaig Point, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

PARATYPE YPM 24297–24301

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17.

Late Silurian, McAdam Fm. Zone c of McLearn, along shore, between the point at the E side of McDonald's Cove and McAdam Brook, SW of Arisaig Point, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

PARATYPE YPM 24302, 24303

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17.

Late Silurian, McAdam Fm. Zone b of McLearn, along shore, between mouth of McAdam Brook and McAdams Boat Landing, SW of Arisaig Point, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

PARATYPE YPM 24304–24306

McLearn, F.H. 1918. Am. J. Sci. v.155, p.139.

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.17.

Late Silurian, McAdam Fm. Zone c of McLearn, along shore, between the point at the E side of McDonald's Cove and McAdam Brook, SW of Arisaig Point, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

***Arisaigia? danielensis* Northrop**

HOLOTYPE YPM 13340

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.197, pl.18, f.3.

Middle Silurian, Niagaran, Indian Point Fm. Eastern portion (higher in section), shore at Indian Point, Quebec, Canada. Collector: Northrop, S.A., 1927.

***Astarte castanea* Say**

HYPOTYPE YPM 28159

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.5A,5B.[a]

Quaternary, Holocene. Specimens transplanted from subtidal sand bottom, Quick's Hole, Buzzards Bay, to a sea table with no substrate at Woods Hole Laboratory, Woods Hole, Barnstable Co., Massachusetts, USA. Collector: Rhoads, D.C.

[a]Left valve and piece of right valve missing.

***Astarte* sp.**

HYPOTYPE YPM 28480

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Early Eocene, Hatchetigbee Fm. Collection 3, Bashi shell marl in the lower part of the Hatchetigbee in a big roadcut on US Hwy 31 about 1.5 mi N of McKenzie, Butler Co., Alabama, USA. Collector: Dunbar, C.O., 2/4/1966.

HYPOTYPE YPM 28494

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Miocene, Choctawhatchee Fm. *Cancellaria* facies Chocwhatchee, Jackson Bluff on Ochlockonee River, just S of FL Hwy 20 at a point 20 mi W of Tallahasse, Leon Co., Florida, USA. Collector: Dunbar, C.O., 2/6/1966.

***Aviculopecten aequilateralis* Hall**

HOLOTYPE YPM 6707

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.19, pl.82, f.1.

Late Devonian, Chemung Grp, Chemung Fm. In the upper beds of the Chemung Grp at Alleghany Sulphur Springs, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Aviculopecten basilicus* Newell**

PARATYPE YPM 14451

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52.

PARATYPE YPM 14451A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52, pl.6, f.14.

PARATYPE YPM 14451B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52, tbl.(p.47,#L5), pl.6, f.15.

Late Pennsylvanian, Cisco Grp, Graham Fm. 30 ft below Bunger Limestone Mbr of Graham Fm, 2.5 mi W of Lacasa, just W of the W.F.R. and F.W. Railroad track, Stephens Co., Texas, USA. Collector: Schuchert, C. and Bean, W.C., 1922.

***Aviculopecten* cf. *A. coxanus* Meek and Worthen**

HYPOTYPE YPM 27865

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.56.

Late Pennsylvanian, Willard Shale. Nebraska City Clay Pit, Nebraska City, NW SW sec10T8NR14E, Otoe Co., Nebraska, USA. Collector: Condra, G.E. and others.

***Aviculopecten halensis* Mather**

CAST OF HOLOTYPE YPM 25681[a]

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.59, pl.5, f.5.

CAST OF PARATYPE YPM 25682[b]

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.59, pl.5, f.65.

Upper Carboniferous, Hale Formation, Morrow subseries. East Mountain, Fayetteville, Washington Co., Arkansas, USA.

[a]YPM 25681 is a cast. The original specimen is Univ. Chicago 16051.

[b]YPM 25682 is a cast. The original specimen is Univ. Chicago 16051.

***Aviculopecten mazonensis* Worthen**

HYPOTYPE YPM 14442–14448

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.56.

HYPOTYPE YPM 14454

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.56, pl.4, f.19.

HYPOTYPE YPM 14455–14457

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.56.

HYPOTYPE YPM 14458

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.56, pl.4, f.20.

CAST OF HYPOTYPE YPM 25688[a]

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.56, pl.4., f.22.

Middle Pennsylvanian, Desmoinesian, Carbondale Fm, Francis Creek Shale Mbr. Mazon Creek, Grundy Co., Illinois, USA.

[a]YPM 25688 is a cast. The original specimen is Illinois St. Mus. 13190.

***Aviculopecten moorei* Newell**

HOLOTYPE YPM 14452B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52, tbl.(p.47,#L5), pl.6, f.5.

PARATYPE YPM 14452A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52, pl.6, f.4.

PARATYPE YPM 14452C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52, tbl.(p.47,#L1), pl.6, f.6.

PARATYPE YPM 14452

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52.

HYPOTYPE YPM 26111

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52, tbl.(p.47,#L2).

HYPOTYPE YPM 26112

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.52, tbl.(p.47,#L3).

HYPOTYPE YPM 26113

Newell, N.D. 1937 (1938). Bull. Kans. Geol.

Surv. v.10, p.52, tbl.(p.47,#L4).

Late Pennsylvanian, Kanwaka Shale. At Snyderville Quarry, 3 mi NW of Nehawka, lower part of formation, Avoca Quad., N SE sec10T10NR12E, Cass Co., Nebraska, USA. Collector: Condra, G.E. and others.

***Aviculopecten nodocosta* Newell**

HOLOTYPE YPM 14453A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.53, tbl.(p.48,#L4), pl.6, f.7.

PARATYPE YPM 14453B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.53, tbl.(p.48,#L1), pl.6, f.8.

PARATYPE YPM 14453C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.53, tbl.(p.48,#L2), pl.6, f.10.

PARATYPE YPM 14453D

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.53, tbl.(p.48,#L3).

PARATYPE YPM 14453E

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.53.

Late Pennsylvanian, Burr Limestone. SW edge of Burbank, Osage Co., Oklahoma, USA.

***Aviculopecten ornatus* Hall**

HYPOTYPE YPM 16461

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.102.

HYPOTYPE YPM 16462

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.102, pl.59, f.6.

HYPOTYPE YPM 16463

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.102, pl.58, f.8.

HYPOTYPE YPM 16619

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.102, pl.58, f.5.

HYPOTYPE YPM 16620

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.102, pl.58, f.6.

HYPOTYPE YPM 16621

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.102, pl.59, f.7.

HYPOTYPE YPM 16622

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.102, pl.59, f.8.

Middle Devonian, Traverse Grp, Alpena Limestone. Bioherm facies (upper Alpena, Centerfield horizon), Four Mile Dam on Thunder Bay River, SW1/4 SE1/4 sec07T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Aviculopecten planoradiatus* McCoy**

PARATYPE YPM 14460

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.45, pl.5, f.14.

Carboniferous. Limestone, Derbyshire, England, United Kingdom.

***Aviculopecten subquadrata* Bell**

SYNTYPE YPM 30389

Bell, W.A. 1929, Canada Geological Survey Memoir n.155, p.166, pl.28, f.10,10a.[a]

Late Mississippian, Windsor Grp. Zone 19, Avon River, Windsor, Hants Co., Nova Scotia, Canada. Collector: Schuchert, C., 1905.

[a]Cited as paratype, but a holotype was not designated.

***Aviculopecten vancleeti* Beede**

HYPOTYPE YPM 16332

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.293, pl.2, f.15,16.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Base of Dozier on summit of Naco Butte (Mt. Nebo) on N side of highway, 3 mi W of Estelline (Hall Co.), Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Babinka prima* Barrande**

CAST OF LECTOTYPE YPM 27832

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242.[a]

CAST OF PARATYPE YPM 27828

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242, pl.26, f.6,11.[b]

CAST OF PARATYPE YPM 27829

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242,

pl.28, f.3.[c]

CAST OF PARATYPE YPM 27831

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242.[d]

HYPOTYPE YPM 23858

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242, pl.26, f.3, pl.28, f.13.[e]

HYPOTYPE YPM 23861

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242, pl.28, f.2.[e]

HYPOTYPE YPM 23862

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242, pl.28, f.1.[e]

CAST OF HYPOTYPE YPM 27826

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242, pl.26, f.4.[f]

CAST OF HYPOTYPE YPM 27827

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242, pl.26, f.5.[g]

CAST OF HYPOTYPE YPM 27830

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242, pl.28, f.4.[h]

CAST OF HYPOTYPE YPM 27833

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.242.[i]

Middle Ordovician, *Sarka* Beds. Osek, Czechoslovakia.

[a]YPM 27832 is a latex cast of the lectotype of *Babinka prima*, NMP CD229a, reposited at the Národní Muzeum v Praze, Prague, and illustrated on pl.26, f.10.

[b]YPM 27828 is a latex cast of a paratype of *Babinka prima*, reposited at the Národní muzeum v Praze, Prague, and illustrated on pl.26, f.11.

[c]YPM 27829 is the latex cast of a paratype of *Babinka prima*, reposited in the Národní Muzeum v Praze, Prague, and illustrated on pl.26, f.12.

[d]YPM 27831 is a latex cast of a paratype of *Babinka prima*, reposited at the Národní Muzeum v Praze, Prague, and illustrated on pl.26, f.9.

[e]Figured specimen is a latex cast.

[f]YPM 27826 is a latex cast of *Babinka prima*, NMP CD228a, reposited in the Národní Muzeum v Praze, Prague.

[g]YPM 27827 is the latex cast of *Babinka prima*, NMP CD228b, reposited at the Národní Muzeum v Praze, Prague.

[h]YPM 27830 is a latex cast of a hypotype of *Babinka prima*, reposited in the Národní Muzeum v Praze, Prague, and illustrated on pl.27, f.5, and pl.28, f.9-11.

[i]YPM 27833 is a latex cast of *Babinka prima*, reposited at the Národní Muzeum v Praze, Prague, and illustrated on pl.28, f.14.

Bournonia bournoni d'Orbigny

HYPOTYPE YPM 6920

Seilacher, A. 1998. Bivalves: an eon of evolution, p.433, tf.12A-C.

Late Cretaceous, Rudist Chalk. St. Mamest, Dept. de la Dordogne, France.

Brachidontes? sp. indet.

HYPOTYPE YPM 24121

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.78, pl.17, f.5.

HYPOTYPE YPM 35510

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.78.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. *Crassostrea* bed capping small butte, 0.2 mi NNE of ranch house, and 3.3 mi NNW of Mahto, Mahto Quad., NE CORNER SW SE SE sec6T21NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

[a]Cited as YPM 24121.

Breviarca scotiensis Stephenson

HOLOTYPE YPM 14809

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.388, pl.3, f.17,18.

PARATYPE YPM 14810[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.388.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 15 individuals, although Stephenson (1936) cites 18.

Byssonychia anticostiana Twenhofel

HOLOTYPE YPM 9024

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.231, pl.24, f.8,9.

Late Ordovician, Ellis Bay Fm, Ellis Bay zone 4. W side of Ellis Bay, Quebec, Canada. Collector: Twenhofel, W.H.

***Calyptogena ponderosa* Boss**

HYPOTYPE YPM 28156

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.9D.[a]

Quaternary, Holocene. Pillsbury Station 364, on bottom, 933-961 m depth, lat 9°28.7'N, long 76°34.3'W, Gulf of Darien, Caribbean Sea. Collector: Bayer, F.

[a]The figured acetate peel is missing.

***Cardita crenata* Goldfuss**

HYPOTYPE YPM 26805

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Middle Triassic, Ladinian. St. Cassian, South Tyrol, Austria. Collector: Kittl, E.A.

***Cardita planicosta* (Lamarck)**

HYPOTYPE YPM 26380

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

=*Venericor aposmithii* Gardner and Bowles. HYPOTYPE. Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Tertiary, Middle Eocene, Claiborne Grp. Bells Landing, Monroe Co., Alabama, USA.

***Cardium* sp. ind.**

HYPOTYPE YPM 550

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.204.

=*Cardium* (*Trachycardium*) *peruvianum* Spieker. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.135, pl.8, f.1.

HYPOTYPE YPM 31700, 31701

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.204.

=*Cardium* (*Trachycardium*) *peruvianum* Spieker. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.135.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Cardium* (*Trachycardium*) *peruvianum* Spieker**

See *Cardium* sp. ind.

***Cardium biseriatum* Conrad**

SYNTYPE YPM 6879

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.216.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

=*Protocardia biseriatum*. PARALECTOTYPE. Vokes, H.E. 1942. Am. Mus. Nat. Hist. Nov. n.1183, p.3.

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

SYNTYPE YPM 6888

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.216, pl.6, f.39.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

=*Protocardia biseriatum*. LECTOTYPE. Vokes, H.E. 1942. Am. Mus. Nat. Hist. Nov. n.1183, p.3, tf.1,2.

SYNTYPE YPM 6970

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.216, pl.6, f.38.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

=*Protocardia biseriatum*. PARALECTOTYPE. Vokes, H.E. 1942. Am. Mus. Nat. Hist. Nov. n.1183, p.3, tf.3-7.

Cretaceous. Bhamdun, 11 mi SE of Beirut, and halfway up E slope of Mt. Lebanon [Lebanon Range], Lebanon.

SYNTYPE YPM 24906–24911

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.216.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

=*Protocardia biseriatum*. PARALECTOTYPE. Vokes, H.E. 1942. Am. Mus. Nat. Hist. Nov. n.1183, p.3

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

[a]Incorrectly cited as paratype.

***Cardium crebriechinatum* Conrad**

SYNTYPE YPM 6878

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.217.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

[a]Incorrectly cited as paratype.

***Cardium* (*Trigoniocardia*) *affinis* (Nelson)**
See *Hemicardia affinis* Nelson.

***Chione* (*Chione*) *variabilis* Nelson**

SYNTYPE YPM 547, 31704

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.202.

Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.150.

SYNTYPE YPM 31705

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.202.

Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.150, pl.9, f.9.

SYNTYPE YPM 31706–31710

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.202.

Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.150.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Chione* sp. ind. A**

HYPOTYPE YPM 548

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.202.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Chione* sp. ind. B**

HYPOTYPE YPM 549, 31702, 31703

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.203.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Cimitaria recurva* (Conrad)**

HYPOTYPE YPM 16498

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.87, pl.54, f.4.

Middle Devonian, Traverse Grp, Alpena Limestone. Bioherm facies (upper Alpena, Centerfield horizon), Four Mile Dam on Thunder Bay River, SW1/4SE1/4sec07T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Clavicosta echinata* Newell**

HOLOTYPE YPM 14480A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.79, tbl.(p.79,#L1), pl.13, figs. 5a-5c.

PARATYPE YPM 14480

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.79.

Early Permian, Bader Limestone. Lower Eiss, W of cemetery, NW of Strong City, Chase Co., Kansas, USA. Collector: Condra, G.E. and others.

PARATYPE YPM 14481

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.79, pl.13, f.1.

Late Pennsylvanian, Oread Limestone. Zone B, Snyderville Quarry, Cass Co., Nebraska, USA. Collector: Condra, G.E. and others.

PARATYPE YPM 14482

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.79.

Late Pennsylvanian, Brownville Limestone. Basal part of Brownsville, cut bank 1 mi S of Unadilla, Otoe Co., Nebraska, USA. Collector: Condra, G.E. and others.

PARATYPE YPM 14483A

Newell, N.D. 1937 (1938). Bull. Kans. Geol.

Surv. v.10, p.79, tbl.(p.79,#L3), pl.13, f.4.

PARATYPE YPM 14483B, 14483C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.79.

Early Permian, Foraker Limestone, Americus Limestone. Elmdale, Chase Co., Kansas, USA. Collector: Condra, G.E. and others.

HYPOTYPE YPM 14484

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.79, pl.13, f.3a-3c.

Late Pennsylvanian, Cisco Grp, Graham Fm, South Bend Shale Mbr. Above Bunger Limestone, this collection nearly all from the upper 25 ft of South Bend shales, 2 mi NE of South Bend, Bass Mountain outlier, Young Co., Texas, USA. Collector: Schuchert, C., 1922.

***Clementia dariena* (Conrad)**
See ?*Harvella* sp. ind.

***Clisocolus moreauensis* (Meek and Hayden)**

HYPOTYPE YPM 24009

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.25, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. SW-facing bluffs of SE-trending spur that joins terrace to S and SE, 2 mi WNW of Little Eagle, Little Eagle Quad., E SE SW sec18T20NR27E, NW NE NE sec19T20NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 24010

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.25, f.8,11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, 3 concretions, faces 0.3 mi S of Peabody Locality C0120, and 1 mi SE of High Bank Creek, and 5.8 mi SW of Little Eagle, Little Eagle SW Quad., NE CORNER SE NE sec15T19NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24011

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.25, f.12.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. In grass roots, 4 concretions, small faces at ends of spurs, 1-1.3 mi W of Goose Creek, and 6 mi S of Moreau River, and 5.2 mi NE of Parade, Parade Quad., NW SE sec15T13NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24012

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.25, f.13.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 2 (core WAC36a and jacket WAC36b), sandy zone in bottom half of 2.5-ft tabular and oval concretion layer, creek cut on N side of Snake Creek, 2.7 mi NNE of Trail City, Wakpala SW Quad., N N SW NE sec19T18NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24014

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.25, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 1, face on SW side of S-trending spur, 2.25 mi W of E end of Long's Ridge, Long's Ridge, and 6.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER E SW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24015

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.24, f.8,9.[c]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, W-facing bluffs E of stream valley, 1 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 4.5 mi NNE of Green Grass, Parade NW Quad., CENTER NW NW sec33T15NR24E, SW CORNER sec28T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24016

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.25, f.l.[d]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Gervillia-Oxytoma* concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24017

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.25, f.6,9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Part of *nicolleti* concretion from measured section, cut on E side of second roadcut N of Little Eagle on McLaughlin-Little Eagle Road, and 3.3 mi N of Little Eagle, Little Eagle Quad., CENTER E SE sec5T20NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1957.

HYPOTYPE YPM 24018

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.24, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* Concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion 1, 3 ft below LGAZ, face on SW side of SSE-trending spur, 660 ft NW of Peabody Locality C0231, and at E end of Long's Ridge, and 5.7 mi W of Whitehorse, Little Moreau Lake Quad., CENTER E E SW NE sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24019

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.110, pl.25, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 3, 7.5 ft below *Limopsis* layer, in face on SW side of slump block 300 ft SSW of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE NW sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The description for pl.25, f.12, should state loc.146, not loc.143.

[b]The description for pl.25, f.13, should state *Protocardia-Oxytoma* Assemblage Zone, not Lower *nicolleti* AZ.

[c]Pl.7, f.3 is incorrectly published as YPM 24015.

[d]The description for pl.25, f.1, should state *Limopsis-Gervillia* Assemblage Zone, not *Protocardia-Oxytoma* AZ.

***Codakia* (*Codakia*) *orbicularis* Linnaeus**

HYPOTYPE YPM 27061

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.281, pl.31, f.4.

Quaternary, Holocene. Abundant in carbonate sand, shallow water, S end of Lower Matecombe Key, Monroe Co., Florida, USA. Collector: Rhoads, D.C., 6/1966.

***Codakia* (*Ctena*) sp.**

HYPOTYPE YPM 23868

McAlester, A.L. 1965. Palaeont. v.8, pt.2, pl.26, f.1,2.[a]

Quaternary, Holocene. Beach sand, Bikini Atoll, Marshall Islands, North Pacific Ocean. Collector: Dunbar, C.O., 7/3/1946.

[a]The part and counterpart, individually published as YPM 23868 and YPM 23869, are now both YPM 23868.

***Codakia orbicularis* (Linne)**

HYPOTYPE YPM 23865

McAlester, A.L. 1965. Palaeont. v.8, pt.2, pl.27, f.1.

Quaternary, Holocene. Barbados, West Indies. Collector: McAlester, A.L., 1962.

***Codakia*? (*Clairbornites*) *symmetrica* (Conrad)**

HYPOTYPE YPM 27062

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.287, pl.32, f.8-10.

Tertiary, Middle Eocene, Claiborne Grp. Claiborne, Monroe Co., Alabama, USA. Collector: Schowalter, E.R.

***Conocardium beecheri* Raymond**

SYNTYPE YPM 15322A

Raymond, P.E. 1905. Am. J. Sci. v.170, p.374.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.336, pl.30, f.5.[a]

SYNTYPE YPM 15322B

Raymond, P.E. 1905. Am. J. Sci. v.170, p.374.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.336, pl.30, f.4.[a]

SYNTYPE YPM 15322C

Raymond, P.E. 1905. Am. J. Sci. v.170, p.374.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.336, pl.30, f.6.[a]

SYNTYPE YPM 15322D

Raymond, P.E. 1905. Am. J. Sci. v.170, p.374.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.336, pl.30, f.7.[a]

Middle Ordovician. Sloop Bay, Valcour Island, Clinton Co., New York, USA. Collector: Raymond, P.E., 1903.

SYNTYPE YPM 26921

Raymond, P.E. 1905. Am. J. Sci. v.170, p.374.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.336, pl.30, f.8-10.[a b]

Middle Ordovician, Chazy Grp. Sloop Bay, Valcour Island, Clinton Co., New York, USA.

HYPOTYPE YPM 26273

Twenhofel, W.H. 1938. Spec. Pap. Geol. Soc. Am. n.11, p.54, pl.5, f.5.

Ordovician, Mingan Fm. Bald Island, Mingan Islands, Quebec, Canada. Collector: Twenhofel, W.H.

[a]Cited as a "cotype" of *Conocardium beecheri* Raymond, although it was neither mentioned nor figured in the original description.

[b]Collection data indicates that this is the specimen on pl.30, f.8-10, though it does not resemble the figure.

***Conocardium bellum* Cooper and Cloud**

HYPOTYPE YPM 26808

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Middle Devonian, Traverse Grp, Alpena Limestone. Bioherm facies (upper Alpena, Centerfield horizon), Four Mile Dam on Thunder Bay River, SW 1/4 SE 1/4 sec07T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Conocardium herculeum* Koninck**

HYPOTYPE YPM 26806

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.1.[a]

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

HYPOTYPE YPM 26807

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.1, f.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Early Mississippian, Tournaisian. Tournai, Belgium.

[a]SEM stub is missing.

***Conocardium* sp.**

HYPOTYPE YPM 26378

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, pl.8, f.5, tbl.3.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science, v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Pennsylvanian, Vilas Shale. Base of Vilas, hillside 0.25 mi NNW of Wann, Nowata Co., Oklahoma, USA. Collector: Dunbar, C.O.

HYPOTYPE YPM 26379

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, pl.8, f.6.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science, v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Pennsylvanian, Vilas Shale. Base of Vilas, hillside 0.25 mi NNW of Wann, Nowata Co., Oklahoma, USA. Collector: Dunbar, C.O.

HYPOTYPE YPM 26383, 26384

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science, v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Pennsylvanian, Vilas Shale. Base of Vilas, hillside 0.25 mi NNW of Wann, Nowata Co., Oklahoma, USA. Collector: Dunbar, C.O.

***Conocardium subtrigonale* d'Orbigny**

HYPOTYPE YPM 28062

Branson, C.C. 1942. Wagner Free Inst. Sci. p.26.

Early Devonian, Helderberg Grp. Upper Helderberg, falls of the Ohio, Clark Co., Ohio, USA.

***Corbicula* sp. A.**

HYPOTYPE YPM 23872

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster bed capping butte, Mud Butte, a small butte on E side of road, about 3 mi NE of Freeman Ranch, and 8 mi NNW of Red Scaffold, Bull Creek 2 NW Quad., Bessie Butte Quad., N SW SW sec25T11NR18E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1962.

HYPOTYPE YPM 23873

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96.

HYPOTYPE YPM 23874

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.9.

HYPOTYPE YPM 23875–23877

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster beds and shell conglomerates, caprocks of the 3 buttes at Dog Butte, within 0.4 mi N of county road, and about 5 mi due E of Timber Lake, Glencross Quad., CENTER S S sec18T17NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and others, 1957 to 1962.

HYPOTYPE YPM 23878

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.13.

HYPOTYPE YPM 23879

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.11.

HYPOTYPE YPM 23880

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Roadcut on E side of county road, 3 mi N of Owl Creek, and 6 mi NE of Red Owl, White Owl 3 NW Quad., White Owl NW Quad., CENTER sec18T9NR14E, Meade Co., South Dakota, USA. Collector: Waage, K.M.

HYPOTYPE YPM 24395

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.1,4.

HYPOTYPE YPM 24396

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.3,12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. All along base of Colgate channel in the amphitheater that faces W toward bluffs, extensive badland exposures along but principally W of head of small drainage system running N to Moreau River, and 4 mi SE of Iron Lightning, Redelm NE Quad., NW NE SW sec33T14NR19E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961 to 1962.

HYPOTYPE YPM 24398

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster beds and shell conglomerates, caprocks of the 3 buttes at Dog Butte, within 0.4 mi N of county road, and about 5 mi due E of Timber Lake, Glencross Quad., CENTER S S sec18T17NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and others, 1957 to 1962.

HYPOTYPE YPM 24399

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Roadcut on E side of county road, 3 mi N of Owl Creek, and 6 mi NE of Red Owl, White Owl 3 NW Quad., White Owl NW Quad., CENTER sec18T9NR14E, Meade Co., South Dakota, USA. Collector: Waage, K.M.

HYPOTYPE YPM 24401

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster beds and shell conglomerates, caprocks of the 3 buttes at Dog Butte, within 0.4 mi N of county road, and about 5 mi due E of Timber Lake, Glencross Quad., CENTER S S sec18T17NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and others, 1957 to 1962.

HYPOTYPE YPM 24402

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster bed capping butte, Mud Butte, a small butte on E side of road, about 3 mi NE of Freeman Ranch, and 8 mi NNW of Red Scaffold, Bull Creek 2 NW Quad., Bessie Butte Quad., N SW SW sec25T11NR18E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1962.

HYPOTYPE YPM 24715

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96.

HYPOTYPE YPM 24712

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.8.

HYPOTYPE YPM 24713

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.

n.33, p.96, pl.21, f.6.

HYPOTYPE YPM 24714

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.96, pl.21, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Roadcut on E side of county road, 3 mi N of Owl Creek, and 6 mi NE of Red Owl, White Owl 3 NW Quad., White Owl NW Quad., CENTER sec18T9NR14E, Meade Co., South Dakota, USA. Collector: Waage, K.M.

***Corbicula* sp.**

HYPOTYPE YPM 16833[a]

Olsen, P.E. 1977. Field guide to the geology of the Durham Triassic Basin, f.18F.

Late Triassic, Chatham Grp. 3.5-ft-thick lacustrine beds, 47.5 ft above base of section in main quarry of Triangle Brick Co., W side of NC Rt. 1630, Genlee, Durham Co., North Carolina, USA. Collector: Olsen, P.E. and Litt, A., 3/23/1977.

[a]This specimen lot is represented by 2 individuals.

***Corbicula subelliptica* (Meek and Hayden)**

HYPOTYPE YPM 35088

Waage, K.M. 1968. Bull. Peabody Mus. Nat. Hist. n.27, pl.12, f.i(left).

HYPOTYPE YPM 35089

Waage, K.M. 1968. Bull. Peabody Mus. Nat. Hist. n.27, pl.12, f.i(center).

HYPOTYPE YPM 35090

Waage, K.M. 1968. Bull. Peabody Mus. Nat. Hist. n.27, pl.12, f.i(right).

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. All along base of Colgate channel in the amphitheater that faces W toward bluffs, extensive badland exposures along but principally W of head of small drainage system running N to Moreau River, and 4 mi SE of Iron Lightning, Redelm NE Quad., NW NE SW sec33T14NR19E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961 to 1962.

***Corbula bradleyi* Nelson**

HOLOTYPE YPM 551

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.200.

Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.171, pl.10, f.13,14.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Corbula latona* Stephenson**

HOLOTYPE YPM 14841

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.397, pl.5, f.1-2.

PARATYPE YPM 14842

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.397, pl.5, f.3.

PARATYPE YPM 14843[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.397.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 22 individuals, although Stephenson (1936) cites 27.

***Corbula* sp. ind.**

HYPOTYPE YPM 552

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.200.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Corbula tethys* Stephenson**

HOLOTYPE YPM 14844

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.398, pl.5, f.4-6.

PARATYPE YPM 14845

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.398, pl.5, f.7.

PARATYPE YPM 14846[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.398.

Late Cretaceous. Loose boulder brought up in a

fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 14 individuals, although Stephenson (1936) cites 19.

***Corbulamella gregaria* (Meek and Hayden)**

HYPOTYPE YPM 24157

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.37, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion 1, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NE NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24158

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.37, f.1.

HYPOTYPE YPM 24159

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143.

HYPOTYPE YPM 24160

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.36, f.16,20.

HYPOTYPE YPM 24161

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.36, f.17,19.

HYPOTYPE YPM 24162

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.36, f.18.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion 1, faces 0.3 mi S of Peabody Locality C0120, and 1 mi SE of High Bank Creek, and 5.8 mi SW of Little Eagle, Little Eagle SW Quad., NE CORNER SE NE sec15T19NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24163

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.37, f.3,4.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis-Gervillia* Assemblage Zone. Layered, barrel-shaped concretion (upper *Gervillia* part is 26f and lower *Limopsis* part is 26g), E-facing bluff of sharp ridge on W bank of Grand River at E-W part of bend, 2.5 mi S of Bullhead, Miscol NE Quad., CENTER NW sec6T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24164

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.36, f.14.

HYPOTYPE YPM 24165

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, large *Gervillia*, E-facing bluff of sharp ridge on W bank of Grand River at E-W part of bend, 2.5 mi S of Bullhead, Miscol NE Quad., CENTER NW sec6T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24166

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.37, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion 1, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NE NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24167

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.36, f.21.

HYPOTYPE YPM 24168

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.143, pl.37, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, concretion, faces 0.3 mi S of Peabody Locality C0120, and 1 mi SE of High Bank Creek, and 5.8 mi SW of Little Eagle, Little Eagle SW Quad., NE CORNER SE NE sec15T19NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

[a]Pl.37, f.3,4 should be A309, not A301 as stated.

***Cornellites chemungensis* (Conrad)**

HYPOTYPE YPM 21471

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.13, f.1.

HYPOTYPE YPM 21472A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.13, f.2, pl.14,f.9(lower left).

HYPOTYPE YPM 21472B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.14, f.9(upper left).

HYPOTYPE YPM 21472C

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.14, f.9(upper middle).

Late Devonian, Chemungian. Lower middle Chemung, outcrop along NE side of Erie Railroad tracks beginning 0.2 mi SE of Chemung River Bridge and extending NW for 0.5 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

HYPOTYPE YPM 21473

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.13, f.3.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21474

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.13, f.4.

Late Devonian, Chemungian. Lower middle Chemung, along Erie Railroad tracks 0.5 mi E of Chemung River Bridge, 0.2 mi E of Wellsburg along NY Hwy 427 and Erie Railroad, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21475

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.13, f.5.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between parking area and W limit of fresh talus, and between 0.6 and 0.8 mi W of Chemung-Tioga county line, and about 2 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21476

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.13, f.6.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA.

HYPOTYPE YPM 21477

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.13, f.7.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21478

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.14, f.1.

Late Devonian, Chemung Grp. Nichols township area, Tioga Co., New York, USA. Collector: Howell, R.

HYPOTYPE YPM 21479

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.14, f.2.

Late Devonian, Chemungian. Lower middle Chemung, roadcut along N side of NY Hwy 17, beginning 0.5 mi W of junction with NY Hwy 282 in Smithboro and extending W for 0.2 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 7/15/1957.

HYPOTYPE YPM 21480

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.14, f.3.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Rd and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21481

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.14, f.4.

Late Devonian, Chemungian. Lower middle Chemung, roadcut along N side of NY Hwy 17, beginning 0.5 mi W of junction with NY Hwy 282 in Smithboro and extending W for 0.2 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 7/15/1957.

HYPOTYPE YPM 21482

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.14, f.5.

Late Devonian, Chemungian. Middle middle

Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21483

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36, pl.14, f.7.

Late Devonian, Chemung Grp. Nichols township area, Tioga Co., New York, USA. Collector: Howell, R.

HYPOTYPE YPM 75604–75606

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36.

Late Devonian, Chemungian. Lower middle Chemung, outcrop along NE side of Erie Railroad tracks beginning 0.2 mi SE of Chemung River Bridge and extending NW for 0.5 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

HYPOTYPE YPM 75607, 75608

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36.

Late Devonian, Chemungian. Lower middle Chemung, along Erie Railroad tracks 0.5 mi E of Chemung River Bridge, 0.2 mi E of Wellsburg along NY Hwy 427 and Erie Railroad, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 75609, 75610

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.36.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

***Cornellites fasciculata* (Goldfuss)**

HYPOTYPE YPM 38444–38447

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.333.[a]

Middle Devonian, Hamilton Grp, Marcellus Shale, Solsville Mbr. "Peterboro South," small abandoned quarry on E side of Swamp Road along small creek, and 0.9 mi SSE of Bliss Corners, and 3.0 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

See also *Ptychopteria* (*Cornellites*) *fasciculata* (Goldfuss).

[a]Cited with Invertebrate Zoology catalog number YPM 10064.

***Cornellites fasciculatus* (Goldfuss)**

HYPOTYPE YPM 16431–16433

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.94.

HYPOTYPE YPM 16633

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.94, pl.63, f.4,5.[a]

Middle Devonian, Traverse Grp, Genshaw Fm. Lower Genshaw, abandoned shale pit of the Alpena Portland Cement Co., NW1/4 SE1/4 sec18T32NR09E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

[a]Incorrectly cited as YPM 16623 on pl.59, f.4,5.

***Crassatella gibbosa* Sowerby**

HYPOTYPE YPM 560

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.203, pl.7, f.9.

HYPOTYPE YPM 31711–31726

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.203.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Crassatella mississippiensis* Conrad**

HYPOTYPE YPM 26377

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, pl.8, f.2,3, tbl.3.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Tertiary, Late Eocene. Vicksburg, Warren Co., Mississippi, USA.

***Crassostrea subtrigonalis* (Evans and Shumard)**

HYPOTYPE YPM 24417

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster beds in grass roots at top of section, unit 8, local badlands in W-facing amphitheater, 0.5 mi W of Damberger Ranch house, and 3 mi S of Thunder Butte Village, Thunder Butte Quad., N NE NW sec22T14NR20E, S SE SW sec15T14NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961.

HYPOTYPE YPM 24418

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.19, f.23.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster beds and shell conglomerates, caprocks of the 3 buttes at Dog Butte, within 0.4 mi N of county road, and about 5 mi due E of Timber Lake, Glencross Quad., CENTER S S sec18T17NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and others, 1957 to 1962.

HYPOTYPE YPM 24419

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. All along base of Colgate channel in the amphitheater that faces W toward bluffs, extensive badland exposures along but principally W of head of small drainage system running N to Moreau River, and 4 mi SE of Iron Lightning, Redelm NE Quad., NW NE SW sec33T14NR19E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961 to 1962.

HYPOTYPE YPM 24420

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.10.

HYPOTYPE YPM 24421

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.5,6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster bed capping butte, butte on E side of Bullhead-Walker county road, and 2.75 mi NNW of Bullhead, Bullhead Quad., CENTER E NW NE sec11T21NR24E, Corson Co., South Dakota, USA. Collector: Podwell, R.A., 1962.

HYPOTYPE YPM 24422

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.8,9.

HYPOTYPE YPM 24716

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93.

HYPOTYPE YPM 24717

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.7.

HYPOTYPE YPM 24718

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.19, f.24.

HYPOTYPE YPM 24719

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.3.

HYPOTYPE YPM 24720

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.1.

HYPOTYPE YPM 24721

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.93, pl.20, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster beds and shell conglomerates, caprocks of the 3 buttes at Dog Butte, within 0.4 mi N of county road, and about 5 mi due E of Timber Lake, Glencross Quad., CENTER S S sec18T17NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and others, 1957 to 1962.

HYPOTYPE YPM 35087

Waage, K.M. 1968. Bull. Peabody Mus. Nat. Hist. n.27, pl.12, f.g.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. All along base of Colgate channel in the amphitheater that faces W toward bluffs, extensive badland exposures along but principally W of head of small drainage system running N to Moreau River, and 4 mi SE of Iron Lightning, Redelm NE Quad., NW NE SW sec33T14NR19E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961 to 1962.

Crenella elegantula Meek and Hayden

HYPOTYPE YPM 24091

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.79, pl.17, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, toe of spur, exposures along S to SE-trending spur 0.2-0.7 mi W of McLaughlin-Little Eagle Road, and 3 mi NNW of Little Eagle, Little Eagle Quad., NE SW NE sec8T20NR27E, Corson Co., South Dakota,

USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 24092

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.79, pl.17, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. SW-facing bluffs of spur trending SE, 3 mi WNW of Little Eagle, Little Eagle Quad., CENTER S EDGE sec13T20NR26E, CENTER N N sec24T20NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 24093

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.79, pl.17, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 3, small spur on W side of ridge, 600 ft NW of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., NW SW NW NE sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24094

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.79, pl.17, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, just above sand zone, faces 0.3 mi S of Peabody Locality C0120, and 1 mi SE of High Bank Creek, and 5.8 mi SW of Little Eagle, Little Eagle SW Quad., NE CORNER SE NE sec15T19NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24095

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.79, pl.17, f.10

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. SW-facing bluffs of spur trending SE, 3 mi WNW of Little Eagle, Little Eagle Quad., CENTER S EDGE sec13T20NR26E, CENTER N N sec24T20NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 24096

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.79, pl.17, f.11.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretions, southern of 3 sites, face on spur 0.8 mi SE of High Bank Creek, S of Grand River, and 5.7 mi SW of Little Eagle, Little Eagle SW Quad., CENTER W EDGE NW NW sec14T19NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]Pl.17, f.11 should be A1177, not A1175 as stated.

***Ctenodonta? bidorsata* Raymond**

SYNTYPE YPM 26911

Raymond, P.E. 1906. Ann. Carnegie Mus. v.3, n.4, p.577.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.332, pl.29, f.5.

SYNTYPE? YPM 26955[a]

Raymond, P.E. 1906. Ann. Carnegie Mus. v.3, n.4, p.577.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.332, pl.29, f.4.

Middle Ordovician, Chazy Grp. Trilobite layers, middle of Sloop Bay, Valcour Island, Clinton Co., New York, USA.

[a]YPM 26955 is labeled as a "cotype," however, it is not specifically mentioned or figured in the text.

***Ctenodonta dubiaformis* Raymond**

HOLOTYPE YPM 26910

Raymond, P.E. 1905. Am. J. Sci. v.170, n.119, p.371.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.331, pl.29, f.6.

Middle Ordovician, Chazy Grp. Trilobite layers, middle of Sloop Bay, Valcour Island, Clinton Co., New York, USA.

***Ctenodonta elliptica* (Hall)**

HYPOTYPE YPM 24751

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.225.

Silurian, Jupiter Fm, Jupiter zone 2. East Cliff, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

***Ctenodonta limbata* Raymond**

SYNTYPE YPM 26916

Raymond, P.E. 1905. Am. J. Sci. v.170, p.371.

=*Vanuxemia limbata*. Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.333, pl.29, f.11.

SYNTYPE YPM 26917

Raymond, P.E. 1905. Am. J. Sci. v.170, p.371.

=*Vanuxemia limbata.* Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.333, pl.29, f.10.

Middle Ordovician, Chazy Grp. Trilobite layers, middle of Sloop Bay, Valcour Island, Clinton Co., New York, USA.

***Ctenodonta parvidens* Raymond**

SYNTYPE YPM 26953

Raymond, P.E. 1905. Am. J. Sci. v.170, p.372.

Whiteaves, J.F. 1908. Ottawa Naturalist v.22, n.6, p.113.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.340, pl.29, f.7.

Middle Ordovician, Aylmer Sandstone. Aylmer, Quebec, Canada. Collector: Sowter, T.E.

SYNTYPE YPM 26954

Raymond, P.E. 1905. Am. J. Sci. v.170, p.372.

Whiteaves, J.F. 1908. Ottawa Naturalist v.22, n.6, p.113.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.340, pl.29, f.8.

Middle Ordovician. Shale and limey clays at Hog's Back, Ottawa, Ontario, Canada. Collector: Sowter, T.E.

***Ctenodonta peracuta* Raymond**

HYPOTYPE YPM 26909[a]

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.330, pl.29, f.1-3.

Middle Ordovician, Chazy Grp. Float in loose material in Hudson Fault, Sloop Bay, Valcour Island, Lake Champlain, Clinton Co., New York, USA. Collector: Raymond, P.E.

[a]Specimen is labeled as a holotype, but was collected after the original description of the species.

***Ctenodonta? lata* var. (Hall)**

HYPOTYPE YPM 14862[a]

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.196, pl.17, f.28.

Middle Silurian, Niagaran, Bouleaux Fm. Shore W side of Pointe Bouleaux extending into Anse-aux-Gascons, Quebec, Canada. Collector: Northrop, S.A., 1927.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Ctenodonta? pulchella* (Hall)**

HYPOTYPE YPM 25939

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.112, pl.20, f.1.

HYPOTYPE YPM 25940

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.112, pl.20, f.2.

HYPOTYPE YPM 25941

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.112, pl.20, f.3.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 0.5 mi N of Bastress, along PA Rt. 654, Lycoming Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

***Ctenodonta? pulchella?* (Hall)**

HYPOTYPE YPM 25942

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.112, pl.20, f.4.

Late Ordovician, Reedsville Fm. Interbedded shale and ferruginous sandstone, occasional shale pebble conglomerate, quarry 1.0 mi S of Rauchtown within PA State Park grounds a few hundred yards E of PA Rt. 880, Clinton Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

***Cucullaea nebrascensis* Owen**

HYPOTYPE YPM 23882

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.1, pl.7, f.4.

HYPOTYPE YPM 23883

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.2.

HYPOTYPE YPM 23884

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.5.

HYPOTYPE YPM 23885

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.6.

HYPOTYPE YPM 23886

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.

n.33, p.49, tbl.2, tf.6, f.8.

Hypotype YPM 23887

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.10.

Hypotype YPM 23888

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.17.

Hypotype YPM 23889

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.18.

Hypotype YPM 23890

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.19.

Hypotype YPM 23891

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.21.

Hypotype YPM 23892

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.22.

Hypotype YPM 23893

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.7.

Hypotype YPM 23894

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER sec3T14NR20E, E sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

Hypotype YPM 23895

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.14.

Hypotype YPM 23896

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.20.

Hypotype YPM 23897

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.24.

Hypotype YPM 23898

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.25.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion b, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

Hypotype YPM 23899

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.9.

Hypotype YPM 23900

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.16.

Hypotype YPM 23901

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.26.

Hypotype YPM 23902

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.28.

Hypotype YPM 23903

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.29, pl.6, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion c, 1 ft above Peabody Locality A0797, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

Hypotype YPM 23904

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.3, pl.6, f.14.

Hypotype YPM 23905

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.4.

Hypotype YPM 23906

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.15.

HYPOTYPE YPM 23907

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.27.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23908

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.11.

HYPOTYPE YPM 23909

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.30, pl.6, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone?. Float, concretion 1, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23910

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.23.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float and in place, from *Sphenodiscus* layer up through CAZ, roadcut and adjacent outcrops along W side of SD Rt. 63, from High Elk Hill to point 0.5 mi N, and between 5.5 and 6 mi S of intersection with US Rt. 212, High Elk Hill, 6 mi SSW of Eagle Butte Village, High Elk Hill Quad., W W SW sec12T11NR23E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1940 to 1941.

HYPOTYPE YPM 23945

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tbl.2, tf.6, f.13.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, from above unit 3 of section, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24013

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.7, f.3.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Concretion from knob above road, about 0.5 mi SE of Krumm Ranch house on top of 2 small conical buttes, crest of spur and local knobs along trail leading SE of Trail City and roughly paralleling railroad tracks, and 2-3 mi SE of Trail City, Trail City Quad., W sec9T17NR28E, NW NE sec16T17NR28E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24659

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.6, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretions, bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER sec3T14NR20E, E sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24660

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.6, f.3.

HYPOTYPE YPM 24661

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.6, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float, concretions in gravel pit on S side of Moreau River just NW of SD Rt. 65, and 6.8 mi E of Thunder Butte Village, Dupree NE Quad., NW CORNER SE sec3T14NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M.

HYPOTYPE YPM 24662

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.6, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Spur to S of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., NW SW SW NE sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24663

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.6, f.1,2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float and in place, from *Sphenodiscus* layer up through CAZ, roadcut and adjacent outcrops along W side of SD Rt. 63, from High Elk Hill to point 0.5 mi N, and between 5.5 and 6 mi S of intersection with US Rt. 212, High Elk Hill, 6 mi SSW of Eagle Butte Village, High Elk Hill Quad., W W SW sec12T11NR23E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1940 to 1941.

HYPOTYPE YPM 24664

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.6, f.5, pl.7, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Several concretions, ridgetop layer in road bed, crest of spur and local knobs along trail leading SE of Trail City and roughly paralleling railroad tracks, and 2-3 mi SE of Trail City, Trail City Quad., W sec9T17NR28E, NW NE sec16T17NR28E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., 1957.

HYPOTYPE YPM 24665

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.6, f.10,13, pl.7, f.6.

HYPOTYPE YPM 24666

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, pl.6, f.8,9, pl.7, f.1,2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Includes CAZ and *Sphenodiscus* layer, all collections from float and in sand banks of roadcut of abandoned US Rt. 12, railroad cut and spillway of Lantry Dam, 1.5 mi WNW of Lantry, Lantry Quad., CENTER SW SW sec4T12NR22E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1940 to 1962.

HYPOTYPE YPM 26381

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3.[c]

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.[c]

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

HYPOTYPE YPM 28497

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Includes CAZ and *Sphenodiscus* layer, all collections from float and in sand banks of roadcut of abandoned US Rt. 12, railroad cut and spillway of Lantry Dam, 1.5 mi WNW of Lantry, Lantry Quad., CENTER SW SW sec4T12NR22E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1940 to 1962.

[a]The list of hypotypes on p.52 should also include YPM 23945.

[b]Incorrectly cited as YPM 24105 on pl.7, f.3.

[c]Should be loc. A-345, not A-343 as stated in the table.

Cucullaea sp.

HYPOTYPE YPM 24739[a]

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, pl.41, f.2.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER sec3T14NR20E, E sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]This specimen lot is represented by approx. 100 individuals.

[b]Pl.41, f.2 should be loc. A658, not A657 as stated.

Cucullaea wadei Imlay

HYPOTYPE YPM 9028

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.55, tf.8.

HYPOTYPE YPM 54987–54989, 60126–60142, 60146–60166[a]

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49, tf.8.[b]

Late Cretaceous, early Maastrichtian, Ripley Fm, Coon Creek Tongue. Dave Weeks' farm, on Coon Creek, 3.5 mi S of Enville and 7.5 mi N of Adamsville, McNairy Co., Tennessee, USA. Collector: Dunbar, C.O., 1917 to 1919.

[a]YPM 60138, 60159 and 60166 are each represented by 2 specimens.

[b]Cited as YPM 9028.

Cuma alternata Nelson

SYNTYPE YPM 503

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.198, pl.7, f.3.

=*Solenosteira alternata*. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.45.

SYNTYPE YPM 31520

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.198, pl.7, f.4.

=*Solenosteira alternata.* Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.45, pl.1, f.10,11.

SYNTYPE YPM 31521–31526

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.198.

=*Solenosteira alternata.* Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.45.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Cuneamya anticostiana* Twenhofel**

HOLOTYPE YPM 10384

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.225, pl.24, f.5,6.

Late Ordovician, Ellis Bay Fm, Ellis Bay zone 5. Cape Eagle, E side of Ellis Bay, Anticosti Island, Quebec, Canada. Collector: Schuchert, C. and Twenhofel, W.H., 1909.

***Cuneamya robusta* Northrop**

SYNTYPE YPM 13333

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.196, pl.18, f.2.[a]

SYNTYPE YPM 30805

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.196, pl.18, f.1.[b]

Middle Silurian, Niagaran, Bouleaux Fm. NE side of West Point, Quebec, Canada. Collector: Schuchert, C., 8/1923.

[a]Cited as YPM 13333A.

[b]Cited as YPM 13333B.

***Cuspidaria moreauensis* (Meek and Hayden)**

HYPOTYPE YPM 24131

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.154, pl.39, f.13.

HYPOTYPE YPM 24132

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.154, pl.39, f.10.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, lower Trail City Mbr, Little Eagle Lithofacies. Float, concretion 1, outcrops around S end of 2nd spur to E of ridge with Peabody Localities C0242-C0244, about 0.33 mi NE of Peabody Locality C0242, S side of Long's Ridge, and 7.1 mi W of Whitehorse, Little Moreau Lake Quad., SW SW NE SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24133

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.154, pl.39, f.14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 3, 7.5 ft below *Limopsis* layer, in face on SW side of slump block 300 ft SSW of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE NW sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24134

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.154, pl.39, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. End of spur, toe of spur trending S from Whitehorse Ridge, 0.6 mi E of Whitehorse Road, and 0.6 mi S of trail, and 6.0 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NW NE sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24135

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.154, pl.39, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone?. Concretion, face A, 6.2 ft below lowest POAZ layer, S-facing face at S end of exposures, 2 mi E of Goose Creek, 4 mi S of Moreau River, and 9.2 mi WNW of Ridgeview, Ridgeview NW Quad., CENTER N SW sec29T14NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24136

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.154, pl.39, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Large *Gervillia* in clayey silt, concretion zone high in LNAZ, SW-facing bluff about 700 ft SE of Peabody Locality C0010, Whitehorse Ridge, and 4.5 mi NW of Whitehorse, Whitehorse Quad., NW NW SE

sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., 1957.

HYPOTYPE YPM 24144

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.154, pl.39, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* Concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, W-facing bluffs E of stream valley, 1 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 4.5 mi NNE of Green Grass, Parade NW Quad., CENTER NW NW sec33T15NR24E, SW CORNER sec28T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24500

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.154, pl.39, f.15,16.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. Float, small faces E of SD Rt. 63, and 3 mi S of Moreau River, and 6 mi ESE of Green Grass, Parade NW Quad., SE sec35T14NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

[a]The description for pl.39, f.10, should state Lower Trail City, not Lower *nicolleti* AZ.

***Cuspidaria ventricosa* (Meek and Hayden)**

HYPOTYPE YPM 78

Runnegar, B. 1974. J. Paleont. v.48, n.5, tf.9A,9B.

Cretaceous, Fox Hills Fm. South Dakota, USA.

HYPOTYPE YPM 24137

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.155, pl.40, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion b, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24138

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.155, pl.40, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion a, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24139

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.155, pl.40, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion c, 1 ft above Peabody Locality A0797, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24140

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.155, pl.40, f.7,8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion, from 9 in above persistent tabular layer, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 mi SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24141

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.155, pl.40, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24142

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.155, pl.40, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone?. Float, concretion, faces at W end of spurs, 2 mi E of Goose Creek, 4 mi S of Moreau River, and 9.2 mi WNW of Ridgeview, Ridgeview NW Quad., W sec29T14NR26E, Dewey Co., South Dakota, USA.

Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24143

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.155, pl.40, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* Concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, concretion, scattered outcrops in lower Trail City, E side of Whitehorse Creek, and 4.8 mi SSE of Glencross, Glencross Quad., CENTER E NE E sec2T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24745

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.155, pl.40, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretions derived from lower concretion layer, cut in bend on N side of Grand River, and 5 mi N of Miscol, Miscol Quad., S SE SW sec28T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

***Cyclorisma elongata* Stephenson**

HOLOTYPE YPM 14832

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.395, pl.4, f.14,15.

PARATYPE YPM 14833

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.395, pl.4, f.16.

PARATYPE YPM 14834[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.395.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 2 individuals, although Stephenson (1936) cites 3.

***Cyclorisma* sp.**

HYPOTYPE YPM 14835

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.395.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

***Cymbophora* sp.**

HYPOTYPE YPM 24740[a]

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, pl.41, f.1.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Float, concretion, small Pleistocene gravel pit, top of bluff on S bank of Oak Creek, and 1.4 mi WNW of Mahto, Mahto Quad., SW CORNER NE SW sec19T21NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

[a]This specimen lot is represented by 6 individuals.

[b]The figured specimen is a *Protocardia-Cymbophora* association.

***Cymbophora warrenana* (Meek and Hayden)**

HYPOTYPE YPM 24440

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Float about 15 ft below tableland, concretion 6, dissected SW-trending spur, and eastward-extending bluff, N side of Moreau River, and 0.5 mi E of SD Rt. 65, and 10 mi NNW of Bear Creek Village, Lantry NW Quad., NE CORNER NE sec1T14NR21E, SE CORNER SE sec36T15NR21E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24441

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Float about 15 ft below tableland, concretion 7, dissected SW-trending spur, and eastward-extending bluff, N side of Moreau River, and 0.5 mi E of SD Rt. 65, and 10 mi NNW of Bear Creek Village, Lantry NW Quad., NE CORNER NE sec1T14NR21E, SE CORNER SE sec36T15NR21E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24442

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Several concretions, old 56C#1 of 1959 notebook, base of section B, 600 ft N of St. Patrick Butte benchmark, of 1962 notebook, St. Patrick Butte,

at edge of upland N of Moreau River, Dupree NE Quad., NE SW SE sec23T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1959 to 1962.

HYPOTYPE YPM 24443

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.18.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. 300 ft SSE of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER SW SW NE sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24444

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Concretion, 1.4 ft above layer C, bluffs [probably buttes] 3 mi E of Missouri River, and about 10 mi NW of Pollock, SD, Pollock NW Quad., sec15T129NR87W, E sec16T129NR87W, Emmons Co., North Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24445

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.4,7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24446

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.6,14,19.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. *Ostrea-Pteria* association concretion, 8.2 ft below banded beds, S-facing bluffs on N bank of Grand River, 1 mi NNW of Twito Ranch house, and 6 mi WSW of Black Horse, Black Horse Quad., S S SE SE sec13T20NR21E, Corson Co., South Dakota, USA. Collector: Speden, I.G. and Podwell, R.A., 1962 to 1963.

HYPOTYPE YPM 24447

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.17.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24448

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Bullhead Lithofacies. Float (various lots, some of which are pinpointed as to horizon), along bluffs throughout Peabody Locality C0056, St. Patrick Butte, about 1 mi of SSE-trending badlands scarp facing WSW at edge of upland N of Moreau River, Dupree NE Quad., Irish Creek Quad., CENTER N NE sec26T15NR21E, S CENTER S NE NW sec23T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 24449

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.16.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cymbophora-Tellina* Assemblage Zone. Mactra Concretion, in Timber Lake at top of talus slope, N-facing bluff S side of Grand River, 1.5 mi W of SD Rt. 65 bridge, and 1.8 mi SSE of Black Horse, Black Horse NE Quad., CENTER SE SE sec14T20NR22E, Corson Co., South Dakota, USA. Collector: Podwell, R.A., 1962.

HYPOTYPE YPM 24450

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.12.[b]

HYPOTYPE YPM 24451

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.128, pl.32, f.9,15.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cymbophora-Tellina* Assemblage Zone. Float, concretion, upper 10 ft of section, outcrops up ridge to top of bench, 2.5 mi WSW of Rattlesnake Butte, and 5.6 mi WSW of Wakpala, Wakpala NW Quad., CENTER S sec14T20NR28E, CENTER SE SW sec14T20NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

[a]The description for pl.32, f.16, should state *Cymbophora-Tellinimera* Assemblage Zone (omitted).

[b]The plate description should state *Cymbophora-Tellinimera* Assemblage Zone, not *Cucullaea* AZ.

***Cymbophora? nitidula* (Meek and Hayden)**

HYPOTYPE YPM 24437

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.130, pl.33, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Top of CTAZ, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

***Cypricardella bellastriata* (Conrad)**

Hypotype YPM 21599

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.29, f.1.

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

Hypotype YPM 21600

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.29, f.2.

Hypotype YPM 21601

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.29, f.3.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

Hypotype YPM 21602

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.29, f.4.

Late Devonian, Chemungian. Lower middle Chemung, small quarry in front of large industrial building on S side of Mountain View Road, 0.4 mi NW of junction with NY Hwy 328 material, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

Hypotype YPM 21603

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.29, f.5.

Hypotype YPM 21604

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.29, f.6.

Hypotype YPM 21605

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.29, f.7.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

Hypotype YPM 21606

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.29, f.8.

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

Hypotype YPM 21607

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.1.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

Hypotype YPM 21608

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.2.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

Hypotype YPM 21609

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.3.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

Hypotype YPM 21610

McAlester, A.L. 1962. Bull. Peabody Mus. Nat.

Hist. n.16, p.68, pl.30, f.4.

Hypotype YPM 21611

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.5.

Hypotype YPM 21612

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.6.

Late Devonian, Chemungian. Lower middle Chemung, along Erie Railroad tracks 0.5 mi E of Chemung River Bridge, 0.2 mi E of Wellsburg along NY Hwy 427 and Erie Railroad, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

Hypotype YPM 21613

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.7.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

Hypotype YPM 21614

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.8.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

Hypotype YPM 21615

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.9.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

Hypotype YPM 21616

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.10.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

Hypotype YPM 21617

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68, pl.30, f.11.

Late Devonian, Chemungian. Middle upper Chemung, roadcut on N side of NY Hwy 84 at base of Buck Hill, 1.75 mi E of intersection with US Hwy 15 at Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

Hypotype YPM 21708

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.7.

Middle Devonian, Hamilton Grp. Sheldrake, Seneca Co., New York, USA. Collector: Beecher, C.E.

Hypotype YPM 21709

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.8.

Middle Devonian, Hamilton Grp. Ludlowville, Tompkins Co., New York, USA. Collector: Bradley, F.H.

Hypotype YPM 21710

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.9.

Middle Devonian, Hamilton Grp. Canandaigua Lake, Ontario Co., New York, USA.

Hypotype YPM 25788

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.6.[a]

Middle Devonian, Hamilton Grp. Ludlowville, Tompkins Co., New York, USA. Collector: Bradley, F.H.

Hypotype YPM 75704, 75705

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.68.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

[a]Incorrectly cited as YPM 21707 in the explanation for pl.16, f.6.

***Cypricardella gregaria* (Hall and Whitfield)**

Hypotype YPM 21631

McAlester, A.L. 1962. Bull. Peabody Mus. Nat.

Hist. n.16, p.69, pl.31, f.3.

HYPOTYPE YPM 21632

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.4.

HYPOTYPE YPM 21633

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.5.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21634

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.6.

HYPOTYPE YPM 21635

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.7.

HYPOTYPE YPM 21636

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.8.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21637

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.9.

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

HYPOTYPE YPM 21638

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.10.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21639

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.11.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21640

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.12.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21641

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.13.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21642

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.14.

HYPOTYPE YPM 21643

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.15.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21644

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.16.

HYPOTYPE YPM 21645

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.17.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft

dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21646

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.31, f.19.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21647

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.1.

HYPOTYPE YPM 21648

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.2.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21649

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.3.

HYPOTYPE YPM 21650

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.4.

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

HYPOTYPE YPM 21651

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.5.

HYPOTYPE YPM 21652

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.6.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21653

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.7.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21654A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.8(left).[a]

HYPOTYPE YPM 21654B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.8(right).[a]

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

HYPOTYPE YPM 21655

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.9.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21656

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.10.

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21657

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.11.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21658

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69, pl.32, f.12.

HYPOTYPE YPM 75756

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 75757

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69.

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

HYPOTYPE YPM 75758, 75759

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 75760–75780

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69.

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 75781, 75782

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.69.

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

[a]The figured specimen is a latex cast.

***Cypricardella* sp.**

HYPOTYPE YPM 22684

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.993, tbl.1,2, pl.127, f.18,19.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

***Cypricardella*? sp. A**

HYPOTYPE YPM 16628

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.82, pl.56, f.5.

HYPOTYPE YPM 16629

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.82, pl.56, f.6,7.

HYPOTYPE YPM 16630

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.82, pl.56, f.8.

Middle Devonian, Traverse Grp, Genshaw Fm. Lower Genshaw, abandoned shale pit of the Alpena Portland Cement Co., NW1/4 SE1/4 sec18T32NR09E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Cypricardinia consimilis* Hall**

SYNTYPE YPM 26246

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.486, pl.96, f.3.

SYNTYPE YPM 26247

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.486.[a]

Early Mississippian, Waverly Grp. Sandstone of the Waverly Grp at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E.

[a]Collection data indicate that this is the 8 × 4.5 mm specimen mentioned on p.487.

***Cypricardinia larocquei* McAlester**

HOLOTYPE YPM 21622

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.70, pl.30, f.18,23.

HYPOTYPE YPM 21623

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.70, pl.30, f.19.

HYPOTYPE YPM 21624

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.70, pl.30, f.20,21.

HYPOTYPE YPM 21625

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.70, pl.30, f.22.

HYPOTYPE YPM 21626

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.70.

Late Devonian, Chemungian. Lower middle Chemung, outcrop along S side of Delaware, Lackawana, and Western Railroad tracks, beginning 0.1 mi W of road junction in Wilawana and extending W for approx. 0.3 mi, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/14/1957.

***Cypricardinia* sp. A**

HYPOTYPE YPM 16468

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.83, pl.56, f.3.

HYPOTYPE YPM 16626

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.83, pl.54, f.8.

HYPOTYPE YPM 16627

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.83, pl.54, f.9.

HYPOTYPE YPM 16636

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.83, pl.56, f.1,2

Middle Devonian, Traverse Grp, Alpena Limestone. Bioherm facies (upper Alpena, Centerfield horizon), Four Mile Dam on Thunder Bay River, SW1/4 SE1/4 sec07T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Cypricardinia*? sp. B.**

HYPOTYPE YPM 21618

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.71, pl.30, f.14.

HYPOTYPE YPM 21619

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.71, pl.30, f.15.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21620

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.71, pl.30, f.16.

Late Devonian, Chemungian. Lower middle Chemung, small quarry in front of large industrial building on S side of Mountain View Road, 0.4 mi NW of junction with NY Hwy 328 material, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

HYPOTYPE YPM 21621

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.71, pl.30, f.17.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 25717, 25718

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.71.

Late Devonian, Chemungian. Lower middle Chemung, small quarry in front of large industrial building on S side of Mountain View Road, 0.4 mi NW of junction with NY Hwy 328 material, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

HYPOTYPE YPM 25719, 25720

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.71.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

***Cypridopsis* sp.**

HYPOTYPE YPM 75594[a]

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.254, pl.4, f.8.

Quaternary, Holocene. Wabash time, New Milford, Litchfield Co., Connecticut, USA.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Cyprimeria* sp.**

HYPOTYPE YPM 14830A

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.394, pl.4, f.13.

HYPOTYPE YPM 14831, 14831A

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.394.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

***Cyrtodaria minuta* Speden**

HOLOTYPE YPM 24481

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.35, f.6,7.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies, *Cymbophora-Tellina* Assemblage Zone. Concretion, 3.6 ft above base of graywacke zone, NE-facing bluff on SW side of Grand River, Jung Ranch, and 1 mi S of Black Horse, Black Horse Quad., CENTER NW sec14T20NR22E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

PARATYPE YPM 24482

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.35, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Small face at SE end of spur, across gully 0.2 mi NNE of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE SW SW SE sec19T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24483

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.35, f.10.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Parts of several concretions, spur 600 ft NW of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER NE SE NW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24484

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.35, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. On spur 600 ft NW of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER NE SE NW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24485

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.35, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* Concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24486

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.35, f.5,11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Several concretions, old 56C#1 of 1959 notebook, base of section B, 600 ft N of St. Patrick Butte benchmark, of 1962 notebook, St. Patrick Butte, at edge of upland N of Moreau River, Dupree NE Quad., NE SW SE sec23T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1959 to 1962.

PARATYPE YPM 24667

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, northern of 2 collected sites, face on W side of prominent cuspate ridge, E side of Grand River, and 3 mi S of Bullhead, Miscol NE Quad., NW CORNER SE SW sec5T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24668

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, in grass roots, concretion 1, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., CENTER E NW NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24669

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24670

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Parts of several concretions, spur 600 ft NW of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER NE SE NW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24671, 24672

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* Concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24673

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, concretion, small slump blocks in lower bluffs on either side of S-draining draw, 0.5 mi due N of Mortonson Ranch house, and 5.5 mi WSW of Little Eagle, Little Eagle NW Quad., E NE sec33T20NR26E, W SIDE NW sec34T20NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

PARATYPE YPM 24674

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 2, small outcrop at W end of spur, SW of prairie trail, and 900 ft NW of Peabody Locality C0239, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NE SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24675

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, lower Trail City Mbr, Little Eagle Lithofacies. Float, concretion 1, outcrops around S end of second spur to E of ridge with Peabody Localities C0242-C0244, about 0.33 mi NE of Peabody Locality C0242, S side of Long's Ridge, and 7.1 mi W of Whitehorse, Little Moreau Lake Quad., SW SW NE SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24676

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 14, *Gervillia* association at top of LNAZ, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24677

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24678

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 2, cut on E side of second roadcut N of Little Eagle on McLaughlin-Little Eagle Road, and 3.3

mi N of Little Eagle, Little Eagle Quad., CENTER E SE sec5T20NR27E, Corson Co., South Dakota, USA. Collector: Biscaye, P.E., 1957.

[a]The description for pl.35, f.6,7, should state *Tancredia-Ophiomorpha* Biofacies, Timber Lake Mbr, not Irish Creek Lithofacies, Trail City Mbr.

[b]The description for pl.35, f.10, should state Loc. A478 (omitted).

***Cyrtodonta lamellosa* Hudson**

HYPOTYPE YPM 26914

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.333, pl.29, f.16.

Middle Ordovician, Chazy Grp. Float in loose material in Hudson Fault, Sloop Bay, Valcour Island, Lake Champlain, Clinton Co., New York, USA. Collector: Raymond, P.E.

***Cyrtodonta scala* Raymond**

HOLOTYPE YPM 26915

Raymond, P.E. 1906. Ann. Carnegie Mus. v.3, n.4, p.578.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.333, pl.29, f.14.

Middle Ordovician, Chazy Grp. Trilobite layers, middle of Sloop Bay, Valcour Island, Clinton Co., New York, USA.

***Cyrtodonta solitaria* Raymond**

HOLOTYPE YPM 26913

Raymond, P.E. 1905. Am. J. Sci. v.170, p.373.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.332, pl.29, f.15.

Middle Ordovician, Chazy Grp. From ledge in field N of Duprey road to Tracy Brook (middle of section of Brainard and Seeley), near Chazy, Clinton Co., New York, USA. Collector: Raymond, P.E., 1903.

***Cyrtodonta*? sp.**

HYPOTYPE YPM 26032

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.129, pl.37, f.1.

HYPOTYPE YPM 26033

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.129, pl.37, f.2.

HYPOTYPE YPM 26034

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.129, pl.37, f.3.

Late Ordovician, Reedsville Fm. Ferruginous stained sandstone and shale pebble conglomerate roadcut 3.0 mi S of Water Lick, along VA Secondary Rt. 678, Massanutten Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

***Deceptrix carinata* Fuchs**

CAST OF LECTOTYPE YPM 24279

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.25, pl.6, f.5.[a]

CAST OF LECTOTYPE YPM 24280

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.25, pl.6, f.6.[a]

Early Devonian, Herscheider Schiefer. Verse Schichten [layer], South of Kobbinghausen, Sauerland, Germany.

[a]The figured specimen is a latex cast; the actual specimen is reposited at the Geologisch-Paläontologischen Museums der Humbolt-Universität, Berlin, Germany.

***Diplodonta punctata* Say**

HYPOTYPE YPM 23863

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.240, pl.28, f.5,6.[a]

Quaternary, Holocene. Kingston Harbor, Jamaica. Collector: McAlester, A.L., 1962.

[a]The part and counterpart, individually published as YPM 23863 and 23864, are now both YPM 23863.

***Divaricella* (*Divalinga*) *quadrisulcata* (d'Orbigny)**

HYPOTYPE YPM 27065

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.309, pl.36, f.7.

Quaternary, Holocene. Dredged in sandy mud, depth 30-35 ft, between Quissett and Sippewissett, Buzzard's Bay, Barnstable Co., Massachusetts, USA. Collector: Bretsky, S.S., 6/1966.

***Divaricella* sp.**

HYPOTYPE YPM 23866

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.240, pl.28, f.7,8.[a]

Quaternary, Holocene. New Zealand.

[a]The part and counterpart, individually published as

YPM 23866 and 23867, are now both YPM 23866.

***Donacia* sp.**

HYPOTYPE YPM 12816

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.255, pl.2, f.6.

Quaternary, Holocene. Wabash time, ditch in a swamp S of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Hickock, H.W.

***Dosinia* (*Dosinidia*) *grandis* Nelson**
See *Dosinia grandis* Nelson.

***Dosinia grandis* Nelson**

SYNTYPE YPM 563, 592, 31684–31690

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.201.

=*Dosinia* (*Dosinidia*) *grandis*. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.138.

PARALECTOTYPE. Palmer, K.V.W. 1927. Palaeont. Am. v.1, n.5, p.275.

SYNTYPE YPM 31761

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.201.

=*Dosinia* (*Dosinidia*) *grandis*. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.138, pl.8, f.4.

LECTOTYPE. Palmer, K.V.W. 1927. Palaeont. Am. v.1, n.5, p.275, pl.17, f.12.

Tertiary, Miocene, Zorritos Fm, Variegated Zorritos Mbr. Small block of down-faulted beds exposed near the mouth of Quebrada Tusillal just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Dosiniopsis deweyi* (Meek and Hayden)**

HYPOTYPE YPM 24169

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, from above unit 3 of section, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24170

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float and in place, from *Sphenodiscus* layer up through CAZ, roadcut and adjacent outcrops along W side of SD Rt. 63, from High Elk Hill to point 0.5 mi N, and between 5.5 and 6 mi S of intersection with US Rt. 212, High Elk Hill, 6 mi SSW of Eagle Butte Village, High Elk Hill Quad., W W SW sec12T11NR23E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1940 to 1941.

HYPOTYPE YPM 24171

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Dosiniopsis* association, 8-10 ft above large concretion layer, W side of Rock Creek, 0.5 mi NE of Ullman Ranch house, and 2.2 mi NE of Bullhead, Bullhead Quad., NE CORNER SW SW sec8T21NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24173

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Exposure on E bank of Rock Creek, and 5 mi NNE of Bullhead, Bullhead Quad., junction of sections 28,29,32,33 SW CORNER sec28T 22NR25E, junction of sections 28,29,32,33 SE CORNER sec29T22NR25E, junction of sections 28,29,32,33 NE CORNER sec32T22NR25E, junction of sections 28,29,32,33 NW CORNER sec33T22NR25E, Corson Co., South Dakota, USA. Collector: Podwell, R.A., 1962.

HYPOTYPE YPM 24174

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.5,7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Dosiniopsis* association, section 2, lowermost TLM at top of face, SW-facing bluff on N side of Grand River, and on 1st spur of hill on W side of Bullhead Village, Bullhead Quad., NE CORNER SW sec24T21NR24E, SW CORNER NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G.

HYPOTYPE YPM 24175

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm,

Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Dosiniopsis* association, N side of Rock Creek, 0.3 mi N Ullmann Ranch house, and 2 mi NE of Bullhead, Bullhead Quad., SW CORNER NW SW SW sec8T21NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24176

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.16,17.

HYPOTYPE YPM 24177

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.11,12.

HYPOTYPE YPM 24178

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.6,10,13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G., Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24179

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.18,19.

HYPOTYPE YPM 24707

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123.

HYPOTYPE YPM 24708

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.1.

HYPOTYPE YPM 24709

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123.

HYPOTYPE YPM 24710

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.2.

HYPOTYPE YPM 24711

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.123, pl.31, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Dosiniopsis* association, 8-10 ft above large concretion layer, W side of Rock Creek, 0.5 mi NE of Ullman Ranch house, and 2.2 mi NE of Bullhead, Bullhead Quad., NE CORNER SW SW sec8T21NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

***Dozierella gouldii* (Beede)**

HYPOTYPE YPM 16337

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.284, pl.1, f.15.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, section 43, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

HYPOTYPE YPM 16338

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.284, pl.1, f.18.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, S side, section 78, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Dunbarella rectalaterarea* (Cox)**

HYPOTYPE YPM 14463A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.40, tbl.(p.39,#L3,#L4), pl.2, f.5,6.[a]

HYPOTYPE YPM 14463B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.40, tbl.(p.39,#L2), pl.2,f.7.

HYPOTYPE YPM 14463C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.40, tbl.(p.39,#L1).

HYPOTYPE YPM 14463

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.40.

Pennsylvanian. Gray shale about 8 ft above #4 coal vein, and 15 ft below ground surface of strip mine, Oakland City, Gibson Co., Indiana, USA. Collector: Harding, J.E., 5/1926.

[a]F.5 and f.6 on pl.2 are views of the part and counterpart of this single specimen, not views of two specimens as implied. Measurements entered for #L3 and #L4 in the table (p.39) are for the part and counterpart of the left valve.

***Dunbarella whitei* (Meek)**

HYPOTYPE YPM 14462A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.39, pl.1, f.9.

HYPOTYPE YPM 14462B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.39, pl.1, f.10.

HYPOTYPE YPM 14462C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.39, pl.1, f.11.

HYPOTYPE YPM 14462D

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.39, pl.2, f.12.

HYPOTYPE YPM 14462E

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.39, pl.2, f.14.

HYPOTYPE YPM 14462F

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.39, tbl.(p.39,#R5), pl.2, f.16a,16b.

HYPOTYPE YPM 14462G

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.39, tbl.(p.39,#L3).

HYPOTYPE YPM 14462H

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.39, tbl.(p.39,#L4).

Late Pennsylvanian, Pierson Point Shale. Under Pony Creek Bridge, 1 mi S of Falls City, Falls City Quad., SW sec23T1NR16E, Richardson Co., Nebraska, USA. Collector: Condra, G.E. and others.

***Durania* sp.**

HYPOTYPE YPM 28498

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.[a]

Late Cretaceous. No locality information available.

[a]Specimen and peels missing; may be a USNM specimen.

***Dytiscus* sp.**

HYPOTYPE YPM 12832

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.255, pl.4a.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Hunt, C.B.

***Edmondia philipi* Hall and Whitfield**

HYPOTYPE YPM 21580

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.9.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21581

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.10.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21582

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.11.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21583

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.12.

Late Devonian, Chemungian. Middle upper Chemung, roadcut on N side of NY Hwy 84 at base of Buck Hill, 1.75 mi E of intersection with US Hwy 15 at Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21584

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.13.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21585

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.14.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21586

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.15.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21587

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.16.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21588

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.17.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21589

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.18.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21590

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.19.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21591

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.20.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21592

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.21.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 25783

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.4.[a]

HYPOTYPE YPM 25784

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.5.[b]

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 25785

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.6.[c]

Late Devonian, Chemungian. Middle upper Chemung, roadcut on N side of NY Hwy 84 at base of Buck Hill, 1.75 mi E of intersection with US Hwy 15 at Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 25786

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.7.[d]

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 25787

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64, pl.27, f.8.[e]

Late Devonian, Chemungian. Middle lower Chemung, roadcut on S side of paved road connecting East Athens and Litchfield, 1.4 mi E of East Athens and 0.2 mi W of East Athens-Litchfield town line, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/22/1958.

HYPOTYPE YPM 75895

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 75896

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 75897

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.64.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

[a]Incorrectly cited as YPM 21575 in the explanation for pl.27, f.4.

[b]Incorrectly cited as YPM 21576 in the explanation for pl.27, f.5.

[c]Incorrectly cited as YPM 21577 in the explanation for pl.27, f.6.

[d]Incorrectly cited as YPM 21578 in the explanation for pl.27, f.7.

[e]Incorrectly cited as YPM 21579 in the explanation for pl.27, f.8.

***Edmondia rotundata* Beede**

HYPOTYPE YPM 16333

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.281, pl.2, f.19.

Late Permian, Whitehorse Grp. Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, section 43, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Endocostea typica* Whitfield**

HYPOTYPE YPM 24053

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.61, pl.20, f.1.

Speden, I.G. 1970. Postilla, n.145, p.20, tf.3c.

HYPOTYPE YPM 24054

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.61.

Late Cretaceous, Pierre Shale. Converse Co. [perhaps now Niobrara Co., see Schuchert and LeVene, 1940, p.216], Wyoming, USA. Collector: Hatcher, J.B. and Beecher, C.E., 1889.

***Entolium demissum* (Phillips)**

HYPOTYPE YPM 6725

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.110, pl.20, f.20.

Middle Jurassic, Brown Jura. Wasseralfingen, Wurtemberg, Germany.

HYPOTYPE YPM 14494

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.110, pl.20, f.19.

Middle Jurassic, Brown Jura B. Wasseralflingen, Wurtemberg, Germany. Collector: Marsh, O.C.

***Eoschizodus? chemungensis* (Conrad)**

HYPOTYPE YPM 21593

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.66, pl.28, f.2.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between parking area and W limit of fresh talus, and between 0.6 and 0.8 mi W of Chemung-Tioga county line, and about 2 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21594

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.66, pl.28, f.4.

Late Devonian, Chemungian. Middle middle

Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21595

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.66, pl.28, f.5.

Late Devonian, Chemungian. Upper lower Chemung, roadcut on both sides of new road (not shown in 1942 edition) between Broome County Airport and village of West Chenango, 0.7 mi SW of West Chenango, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21596

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.66, pl.28, f.6.

Late Devonian, Chemungian. Lindley, Steuben Co., New York, USA.

HYPOTYPE YPM 21597

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.66, pl.28, f.8.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

HYPOTYPE YPM 21598

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.66, pl.28, f.12.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 22667

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.993, tbl.1,2, pl.125, f.1-4.

HYPOTYPE YPM 22668

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.993, tbl.1,2, pl.125, f.5.

HYPOTYPE YPM 22669

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.993, tbl.1,2, pl.125, f.9.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22670

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.993, tbl.1,2, pl.125, f.11.

Late Devonian, Snyder Creek Shale. Small cliff and creekbed exposures along Snyder Creek, NW SW sec17T46NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22671

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.993, tbl.1,2, pl.125, f.13.

HYPOTYPE YPM 22672

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.993, tbl.1,2, pl.125, f.14.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

***Epilucina*? *cedrensis* (Stanton)**

HYPOTYPE YPM 24435

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.103, pl.22, f.11.

HYPOTYPE YPM 24436

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.103, pl.22, f.9,10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G., Speden, E.W., 1962 to 1963.

***Erycina*? sp. A**

HYPOTYPE YPM 24411

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.102, pl.22, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm. Concretion, *abyssinus-mandanensis* Biofacies, (upper Trail City Mbr, Little Eagle Lithofacies or lower Timber Lake Mbr), exposure on S side of stock dam, 7.6 mi due S of Kenel, Mobridge NW Quad., W SE SE sec25T21NR29E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

***Etea* sp.**

HYPOTYPE YPM 14820A

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.392, pl.4, f.3,4.

HYPOTYPE YPM 14820B

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.392.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

***Euchondria levicula* Newell**

HOLOTYPE YPM 14478C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#L4), pl.19, f.11.[a]

HYPOTYPE YPM 14478A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, pl.1, f.6.

HYPOTYPE YPM 14478B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, pl.19, f.10.

HYPOTYPE YPM 14478D

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#L1).

HYPOTYPE YPM 14478E

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#L2).

HYPOTYPE YPM 14478F

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#L3).

HYPOTYPE YPM 14478G

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#L5).

HYPOTYPE YPM 14478H

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#L6).[a]

HYPOTYPE YPM 14478J

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#R7).

HYPOTYPE YPM 14478K

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#R8).

HYPOTYPE YPM 14478L

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.107, tbl.(p.103,#R9).

Late Pennsylvanian, Swope Limestone, Hushpuckney Shale Mbr. Devil's Backbone, Winterset, Madison Co., Iowa, USA. Collector: Condra, G.E. and others.

[a]The footnote to the table on p.103 incorrectly identifies #L6 (YPM 14478H) as the holotype of *Euchondria levicula*. The holotype is actually #L4 (YPM 14478C).

***Euchondria neglecta* (Geinitz)**

HYPOTYPE YPM 14490A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.105, pl.19, f.1.

HYPOTYPE YPM 14490B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.105, pl.19, f.4.

HYPOTYPE YPM 14490

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.105.

Late Pennsylvanian, Topeka Limestone, Jones Point Shale Mbr. 0.5 mi SE of Wabash, Cass Co., Nebraska, USA. Collector: Condra, G.E. and others.

***Euchondria smithwickensis* Newell**

HOLOTYPE YPM 14479B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.106, tbl.(p.103,#R3), pl.19, f.13a,13b.

PARATYPE YPM 14479A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.106, tbl.(p.103,#L1), pl.19, f.12.

Pennsylvanian, Bend Grp, Smithwick Shale. Basal Smithwick, with limestone lenses of Bend Series, E of San Saba, San Saba Co., Texas, USA. Collector: Schuchert, C., 1/8/1927.

***Eumicrotis hawni ovata* Meek and Hayden**

PARATYPE? YPM 25692

Meek, F.B. and F.V. Hayden. 1864. Smith. Contrib. Knowl. v.14, art.5(172), p.55.[a]

=*Pseudomonotis hawni*. Newell, N.D. 1937 (1938).

Bull. Kans. Geol. Surv. v.10, p.94, pl.18, f.16.

PARATYPE? YPM 26114

Meek, F.B. and F.V. Hayden. 1864. Smith. Contrib. Knowl. v.14, art.5(172), p.55.[b]

=*Pseudomonotis hawni.* Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.94, pl.18, f.14a,14b.[c]

Early Permian, Herington Limestone. Probably Herrington, Cottonwood Creek, Chase Co., Kansas, USA. Collector: Meek, F.B., 9/6/1875.

[a]Although not mentioned in the original description as a type, Newell (1937) refers to this specimen as "probably a paratype" in the explanation for pl.18, f.16.

[b]Although not mentioned in the original description as a type, Newell (1937) states that this specimen is "thought to be a paratype" in the explanation for pl.18, f.16.

[c]The figured specimen is a wax cast.

***Exogyra boussingaulti* d'Orbigny**

HYPOTYPE YPM 6802

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.213.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.

HYPOTYPE YPM 24929–24942

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.213.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

***Exogyra* sp. (costate)**

HYPOTYPE YPM 14815

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.391, pl.4, f.2.

HYPOTYPE YPM 14816A, 14816B

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.391.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

***Exogyra* sp. (smooth)**

HYPOTYPE YPM 14813

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.390, pl.4, f.1.

HYPOTYPE YPM 14814A, 14814B[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.390.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Fasciculiconcha knighti* Newell**

PARATYPE YPM 8147A, 8147B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.65.

Late Pennsylvanian. Turner, Wyandotte Co., Kansas, USA.

PARATYPE YPM 14466

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.65.[a]

Pennsylvanian. Kansas City, Missouri, USA.

CAST OF PARATYPE YPM 25674

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.65, pl.8, f.2a,2b.[b]

Late Pennsylvanian, Westerville Limestone. Probably Westerville, Jackson Co., Missouri, USA.

[a]Incorrectly cited as YPM 14446M on p.66.

[b]The figured specimen is a wax cast, YPM 25674. The original specimen is USNM 80337.

***Fasciculiconcha providencensis* (Cox)**

HYPOTYPE YPM 14467A, 14467B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.66.

Middle Pennsylvanian. Coal measures, probably Cherokee, Henry Co., Missouri, USA.

HYPOTYPE YPM 14468A, 14468B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.66.

Middle Pennsylvanian, Marmaton Grp. Lower Fort Scott Limestone, 1 block E of depot at Fort Scott, Fort Scott Quad., NE sec30T25SR25E, Bourbon Co., Kansas, USA. Collector: Condra, G.E. and others.

***Gastrochaena* (*Gastrochaena*) sp.**

HYPOTYPE YPM 35948[a]

Carter, J.G. 1978. Bull. Peabody Mus. Nat. Hist. n.41 p.36, tf.30a.

Pliocene. St. Petersburg, Pinellas Co., Florida, USA.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Gastrochaena* (*Rocellaria*) *linsleyi* Carter**

HOLOTYPE YPM 35954[a]

Carter, J.G. 1978. Bull. Peabody Mus. of Nat. Hist. n.41 p.84, tf.57a-f.

HYPOTYPE YPM 35956[a], 35957[a], 35958[a]

Carter, J.G. 1978. Bull. Peabody Mus. Nat. Hist. n.41 p.84, tf.57a-f.

Late Cretaceous, early Maastrichtian, Ripley Fm, Coon Creek Tongue. Dave Weeks' farm, on Coon Creek, 3.5 mi S of Enville and 7.5 mi N of Adamsville, McNairy Co., Tennessee, USA. Collector: Dunbar, C.O., 1917 to 1919.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Gastrochaena moreana* Buvignier**

HYPOTYPE YPM 35949

Carter, J.G. 1978. Bull. Peabody Mus. Nat. Hist. n.41, p.59, tf.54,55(lower right).

HYPOTYPE YPM 35950

Carter, J.G. 1978. Bull. Peabody Mus. Nat. Hist. n.41, p.59, tf.54,55(lower left).

HYPOTYPE YPM 35951

Carter, J.G. 1978. Bull. Peabody Mus. Nat. Hist. n.41, p.59, tf.54,55(upper left).

Late Jurassic, Malm. Stramberg, Czech Republic.

***Gemma gemma* Totten**

HYPOTYPE YPM 28158

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.6A.[a]

HYPOTYPE YPM 28163

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.6B.[b]

Quaternary, Holocene. Death assemblage from Mulberry Point Beach, Guilford, New Haven Co., Connecticut, USA. Collector: Jackson, J.B., 1/24/1968.

[a]Figured acetate peel missing.

[b]Specimen and figured acetate peel are missing.

***Gervillia montanaensis* Meek**

See *Gervillia sparsilirata* Whitfield.

***Gervillia? montanaensis* Meek**

See *Gervillia sparsilirata* Whitfield.

***Gervillia sparsilirata* Whitfield**

HOLOTYPE YPM 21281

Whitfield, R.P. 1876. U.S. War Dept. p.142, pl.2, f.8.

Whitfield, R.P. 1899. Ann. New York Acad. Sci. v.12, n.8, p.158.[a]

=*Gervillia montanaensis* Meek. HYPOTYPE. Imlay, R.W. 1964. U.S. Geol. Surv. Prof. Pap. n.483-C, p.24, pl.1, f.21.

=*Gervillia? montanaensis* Meek. HYPOTYPE. Imlay, R.W. 1967. Prof. Pap. U.S. Geol. Surv. n.540, p.77.

Middle Jurassic, Ellis Grp, Piper Fm. Middle limestone member, thick beds [above] red clays, 1st limestone on [westward] ascent from a point a "short distance" N of divide in Bridger Pass [= Battle Ridge Pass] and 8 mi N of Sep04 localities, E side of Bridger Mountain, Gallatin Co., Montana, USA. Collector: Dana, E.S. and Grinnell, G.B., 9/5/1875.

[a]At time of publication, specimen was reposited at the United States. National Museum; it has since been acquired by the Yale Peabody Museum.

***Girtyana honessi* Elias**

HYPOTYPE YPM 24335

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.29, pl.35, f.1-4.

HYPOTYPE YPM 24336

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.29, pl.35, f.5-7.

Early Pennsylvanian, Golf Course Fm, Otterville Limestone Mbr. Concretionary lentil 80 ft below lowest limestone of Otterville, Cool Creek Locality, about 2.5 mi N of Gene Autry, Carter Co., Oklahoma, USA. Collector: Elias, M.K., 1919.

***Girtypecten sublaqueatus* (Girty)**

HYPOTYPE YPM 14459

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.78, tbl.(p.73,#1), pl.13, f.14a,14b.

Permian, Word Fm. Second limestone, 0.5 mi N of hill

5611, Hess Canyon, Glass Mountains, Brewster Co., Texas, USA. Collector: King, R.E.

***Glossites depressus* Hall**

HYPOTYPE YPM 21528

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.46, pl.18, f.6.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21529

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.46, pl.18, f.7.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21530

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.46, pl.18, f.8.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between parking area and W limit of fresh talus, and between 0.6 and 0.8 mi W of Chemung-Tioga county line, and about 2 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21531

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.46, pl.18, f.9.

HYPOTYPE YPM 21532

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.46, pl.18, f.10.

HYPOTYPE YPM 21533

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.46, pl.18, f.11.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21534

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.46, pl.18, f.13.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on S side of paved road connecting East Athens and Litchfield, 1.4 mi E of East Athens and 0.2 mi W of East Athens-Litchfield town line, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/22/1958.

HYPOTYPE YPM 75950

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.46.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between parking area and W limit of fresh talus, and between 0.6 and 0.8 mi W of Chemung-Tioga county line, and about 2 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

***Glycymeris* sp.**

HYPOTYPE YPM 28482

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Early Miocene, Trent Marl. Silverdale, Onslow Co., North Carolina, USA. Collector: Thomas, R.D., 1967.

HYPOTYPE YPM 28483

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Middle Miocene, Shoal River Fm. Shell Bluff, Shoal River, Okaloosa Co., Florida, USA. Collector: Thomas, R.D.

HYPOTYPE YPM 28495

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Tertiary, Late Miocene, Yorktown Fm. Claremont, Surry Co., Virginia, USA.

***Goniomya americana* Meek and Hayden**

HYPOTYPE YPM 24145

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.152, pl.39, f.5,7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion 2, slumped outcrops around W end of spur 0.4 mi SW of Long's Ridge prairie trail, and about 0.25 mi NNW of Peabody Locality C0246, Long's Ridge, and 7.1 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NW NW sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24146

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.

n.33, p.152, pl.39, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, 4 ft above persistent layer, face on SW side of S-trending ridge, 600 ft N of Peabody Locality C0233, Long's Ridge, and 6.6 mi W of Whitehorse, Little Moreau Lake Quad., SW NW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24147

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.152, pl.39, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Includes CAZ and *Sphenodiscus* layer, all collections from float and in sand banks of roadcut of abandoned US Rt. 12, railroad cut and spillway of Lantry Dam, 1.5 mi WNW of Lantry, Lantry Quad., CENTER SW SW sec4T12NR22E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1940 to 1962.

HYPOTYPE YPM 24148

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.152, pl.39, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Concretion, barren layer B below CAZ, roadcuts and hill slopes adjacent to where back road from Green Grass to Eagle Butte reaches crest of tableland S of Moreau River, and 2.3 mi WSW of Green Grass, Lantry NE Quad., SE CORNER sec27T14NR23E, SW CORNER sec26T14NR23E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24149

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.152, pl.39, f.2.

HYPOTYPE YPM 24150

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.152, pl.39, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Includes CAZ and *Sphenodiscus* layer, all collections from float and in sand banks of roadcut of abandoned US Rt. 12, railroad cut and spillway of Lantry Dam, 1.5 mi WNW of Lantry, Lantry Quad., CENTER SW SW sec4T12NR22E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1940 to 1962.

HYPOTYPE YPM 35469

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.152.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion 2, slumped outcrops around W end of spur 0.4 mi SW of Long's Ridge prairie trail, and about 0.25 mi NNW of Peabody Locality C0246, Long's Ridge, and 7.1 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NW NW sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

***Goniomya* sp.**

HYPOTYPE YPM 80

Runnegar, B. 1974. J. Paleont. v.48, n.5, p.928, tf.6-G.[a]

Jurassic, Portland Limestone. Near Metz, Moselle, France.

[a]Incorrectly cited as text f. 8-G on p.928.

***Goniophora cayutensis* McAlester**

HOLOTYPE YPM 21525

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.43, pl.18, f.1,2.

Late Devonian, Chemungian. Upper middle Chemung, small quarry ledge about 4 ft above road, W side of NY Hwy 34, and 0.13 mi N of intersection with that road, and 2.7 mi S of Lockwood, Tioga Co., New York, USA. Collector: McAlester, A.L., 8/16/1957.

HYPOTYPE YPM 21526

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.43.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

***Goniophora chemungensis* (Vanuxem)**

HYPOTYPE YPM 21516

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.3.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21517

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.4.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21518

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.5.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21519

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.6.

HYPOTYPE YPM 21520

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.7.

HYPOTYPE YPM 21521

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.8.

HYPOTYPE YPM 21522A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.9(left).

HYPOTYPE YPM 21522B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.9(middle).

HYPOTYPE YPM 21522C

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.9(right).

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21523

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.10.

Late Devonian, Chemungian. Upper lower Chemung, roadcut on both sides of new road (not shown on 1942 edition) between Broome County Airport and village of West Chenango, 0.7 mi SW of West Chenango, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21524

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.42, pl.17, f.11.

Late Devonian, Chemungian. Lower middle Chemung, small quarry in front of large industrial building in S side of Mountain View Road, 0.4 mi NW of junction with NY Hwy 328 material, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

***Goniophora* (*Goniophora*) *hamiltonensis* (Hall)**

HYPOTYPE YPM 38473

Carter, J.G., and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, p.867, tf.15B.[a b]

Carter, J.G., R.J. Lutz and M.J.S. Tevesz. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.391.[b]

HYPOTYPE YPM 38482

Carter, J.G. 1990a. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.268, tf.50B,C.[b]

Carter, J.G., R.J. Lutz and M.J.S. Tevesz. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.391.[b]

HYPOTYPE YPM 38483

Carter, J.G. 1990a. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.266, tf.50A.[b]

Middle Devonian, Hamilton Grp, Marcellus Shale, Solsville Mbr. "Peterboro South," small abandoned quarry on E side of Swamp Road along small creek, and 0.9 mi SSE of Bliss Corners, and 3.0 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited as *Goniophora hamiltonensis* (Hall).

[b]Cited with Invertebrate Zoology catalog number YPM 10060.

***Goniophora* (*Goniophora*) sp.**

HYPOTYPE YPM 16623

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.74, pl.19, f.9.

Middle Devonian, Traverse Grp, Ferron Point Fm. Upper part of Ferron Point, abandoned shale pit of the Alpena Portland Cement Co., NW1/4 SE1/4

sec18T32NR09E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Goniophora* sp.**

HYPOTYPE YPM 21527

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.44, pl.18, f.3.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between parking area and W limit of fresh talus, and between 0.6 and 0.8 mi W of Chemung-Tioga county line, and about 2 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 22664

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.991, tbl.1,2, pl.124, f.1,2.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

***Gosseletia triquetra* (Conrad)**

HYPOTYPE YPM 38435

Carter, J.G. 1990a. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.268, tf.27B,28A,B,D.[a]

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.328.[a]

HYPOTYPE YPM 38436

Carter, J.G., and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, tf.16C.[a]

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.328.[a]

HYPOTYPE YPM 38437

Carter, J.G., and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, tf.16A.[a]

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.328.[a]

HYPOTYPE YPM 38438

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.328.[a]

HYPOTYPE YPM 38439

Carter, J.G. 1990a. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.268, tf.27A.[a]

Middle Devonian, Hamilton Grp. "Peterboro North" locality, E side of Swamp Road, 0.6 mi S of Bliss Corners, and 2.7 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with Invertebrate Zoology catalog number YPM 10062.

***Grammatodon* (*Cosmetodon*) *chemungensis* (Hall and Whitfield)**

HYPOTYPE YPM 21358

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.3.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21359

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.4.

HYPOTYPE YPM 21360

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.5.

HYPOTYPE YPM 21361

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.6.

HYPOTYPE YPM 21362

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.7,16.

HYPOTYPE YPM 21363

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.8.

HYPOTYPE YPM 21364

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.9.

HYPOTYPE YPM 21365

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.10.

HYPOTYPE YPM 21366

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.11.

HYPOTYPE YPM 21367

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.12.

HYPOTYPE YPM 21368

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.13.

HYPOTYPE YPM 21369

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.14.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21370

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.15.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21371

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.18.

HYPOTYPE YPM 21373A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.20(left).

HYPOTYPE YPM 21373B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.20(right).

HYPOTYPE YPM 61041

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25.

HYPOTYPE YPM 61042

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25, pl.4, f.19.

HYPOTYPE YPM 61043–61047

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.25.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

***Grammysia cingulata intermedia* McLearn**

HOLOTYPE YPM 478

McLearn, F.H. 1924. Mem. Geol. Surv. Can. n.118, p.92, pl.11, f.6.[a]

PARATYPE YPM 479

McLearn, F.H. 1924. Mem. Geol. Surv. Can. n.118, p.92, pl.11, f.7.[b]

Late Silurian, Moydart Fm. Zone a of McLearn, along shore, between the point at the E side of McDonald's Cove and McAdam Brook, SW of Arisaig Point, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

[a]Incorrectly cited as YPM 448.

[b]Incorrectly cited as YPM 448a.

***Grammysia communis* Hall**

SYNTYPE YPM 6810

Hall, J. 1885. Paleont. N.Y., v.5, pt.1, p.378, pl.93,f.20.

Late Devonian, Chemung Grp, Chemung Fm. Warren, Warren Co., Pennsylvania, USA.

***Grammysia duplicata* Hall**

HOLOTYPE YPM 6809

Hall, J. 1885. Paleont. N.Y., v.5, pt.1, p.380, pl.93, f.23.

Late Devonian, Chemung Grp, Chemung Fm. In the upper beds [of the Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Grammysia elliptica* Hall and Whitfield**

HYPOTYPE YPM 21579

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.60, pl.25, f.11.[a]

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi

SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 22666

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.992, tbl.1,2, pl.124, f.10-13.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 25725

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.60, tbl.2.

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

HYPOTYPE YPM 25758

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.60, tbl.2.

Late Devonian, Chemungian. Upper lower Chemung, roadcut on both sides of new road (not shown in 1942 edition) between Broome County Airport and village of West Chenango, 0.7 mi SW of West Chenango, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 25759

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.60, tbl.2.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 25760

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.60, pl.25, f.12.[b]

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

[b]Not pl.27, f.8.

[b]Incorrectly cited as YPM 21560 in the explanation for pl.25, f.12.

***Grammysia glabra* Hall**

SYNTYPE YPM 26253

Hall, J. 1885. Paleont. N.Y., v.5, pt.1, p.369, pl.93, f.24.

Late Devonian, Chemung Grp, Chemung Fm. In the upper sandstone [of Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Grammysia obliqua* (McCoy)**

HYPOTYPE YPM 311

McLearn, F.H. 1924. Mem. Geol. Surv. Can. n.118, p.94, pl.12, f.19,20.[a]

Early Silurian, Stonehouse Fm. Coast Section, Arisaig, Antigonish Co., Nova Scotia, Canada. Collector: Twenhofel, W.H., 1908.

[a]Incorrectly cited as YPM 485.

***Grammysia* sp.**

HYPOTYPE YPM 21577

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.61, pl.25, f.9.[a]

Late Devonian, Chemungian. Middle lower Chemung, roadcut at Tioga Point on E side of paved road beginning 3.4 mi S of East Athens and extending S for 0.9 mi, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/19/1958.

[a]Not pl.27, f.6.

***Grammysioidea* sp.**

HYPOTYPE YPM 77

Runnegar, B. and N.D. Newell. 1974. Am. Mus. Nat. Hist. Nov. n.2533, tf.9-H,I.

No locality information available.

HYPOTYPE YPM 21576

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.59, pl.25, f.8.[a]

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

[a]Not pl.27, f.5.

***Grammysioidea subarcuata* (Hall and Whitfield)**

HYPOTYPE YPM 21575

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.58, pl.25, f.3.[a]

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

HYPOTYPE YPM 32696, 32701

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.58.

Late Devonian, Chemungian. Lower middle Chemung, roadcut along N side of NY Hwy 17, beginning 0.5 mi W of junction with NY Hwy 282 in Smithboro and extending W for 0.2 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 7/15/1957.

[a]Not pl.27, f.4.

***Granocardium* (*Ethmocardium*) aff. *G.* (*E.*) *whitei* (Dall)**

HYPOTYPE YPM 24180

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, pl.28, f.9-11.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Bullhead Lithofacies. 2 shell lenses 2 in thick and 8 in apart, one 12.5 ft wide and the other 8 ft wide, about 50 ft below Hell Creek, base of Iron Lightning badlands face, 3 mi S of Moreau River, and 4.1 mi SSE of Iron Lightning, Redelm NE Quad., NW CORNER SW SE SW sec33T14NR19E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.28, f.9-11, should state "Bullhead lithofacies of Iron Lightning Member" instead of "Bullhead member."

***Gresslya* sp.**

HYPOTYPE YPM 79

Runnegar, B. 1974. J. Paleont. v.48, n.5, tf.6-B.

Middle Jurassic. Brown Jura, Europe.

***Gryphaea planoconvexa* Whitfield**

SYNTYPE YPM 6774

Whitfield, R.P. 1876. U.S. War Dept. p.142, pl.2, f.9,10.

Whitfield, R.P. 1899. Ann. N.Y. Acad. Sci. v.12, n.8, p.158.[a]

Imlay, R.W. 1967. Prof. Pap. U.S. Geol. Surv. n.540, p.80, pl.3, f.1,4.[b]

SYNTYPE YPM 6778

Whitfield, R.P. 1876. U.S. War Dept. p.142, pl.1, f.9,10.

Imlay, R.W. 1967. Prof. Pap. U.S. Geol. Surv. n.540, p.80, pl.3, f.5,10.[c]

Middle Jurassic, Ellis Grp, Piper Fm. First limestone on [westward] ascent from a point on Bridger Creek 6 mi NE of Fort Ellis to a point somewhat N of Bridger Peak, E side of Bridger Mountain, Gallatin Co., Montana, USA. Collector: Dana, E.S. and Grinnell, G.B., 9/4/1875.

[a]At time of publication, specimen was reposited at the United States National Museum; it has since been acquired by the Yale Peabody Museum.

[b]Incorrectly cited as the holotype.

[c]F.5 is the left valve and f.10 is the inner surface of the right valve.

***Gryphaea vesicularis*? Lamarck**

HYPOTYPE YPM 16963

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.224.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

***Gryphellina sellardsi* (Beede)**

HYPOTYPE YPM 16335

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.289, pl.1, f.9.

HYPOTYPE YPM 16336

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.289, pl.1, f.10,11.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, section 43, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

?*Harvella* sp. ind.

HYPOTYPE YPM 561

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci.

v.2, pt.1, p.201.

=*Clementia dariena* (Conrad). HYPOTYPE.
Spieker, E.M. 1922. Johns Hopkins Univ. Stud.
Geol. n.3, p.141.

HYPOTYPE YPM 31727

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci.
v.2, pt.1, p.201.

=*Clementia dariena* (Conrad). HYPOTYPE.
Spieker, E.M. 1922. Johns Hopkins Univ. Stud.
Geol. n.3, p.141, pl.8, f.5.

HYPOTYPE YPM 31728

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci.
v.2, pt.1, p.201.

=*Clementia dariena* (Conrad). HYPOTYPE.
Spieker, E.M. 1922. Johns Hopkins Univ. Stud.
Geol. n.3, p.141.

Tertiary, Miocene, Zorritos Fm. Undifferentiated
Zorritos in a small block of down-faulted beds exposed
near the mouth of Quebrada Tusillal, just N of the
Zorritos Schoolhouse, Peru. Collector: Bradley, F.H.
and Larkin, E.P., 1867.

***Hemicardia affinis* Nelson**

SYNTYPE YPM 558

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci.
v.2, pt.1, p.204.

=*Cardium* (*Trigoniocardia*) *affinis*. Spieker, E.M.
1922. Johns Hopkins Univ. Stud. Geol. n.3,
p.136, pl.8, f.2.

SYNTYPE YPM 31729

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci.
v.2, pt.1, p.204.

=*Cardium* (*Trigoniocardia*) *affinis*. Spieker, E.M.
1922. Johns Hopkins Univ. Stud. Geol. n.3, p.136.

Tertiary, Miocene, Zorritos Fm, Lower Zorritos Mbr.
Small block of down-faulted beds exposed near the
mouth of Quebrada Tusillal, just N of the Zorritos
Schoolhouse, Peru. Collector: Bradley, F.H. and
Larkin, E.P., 1867.

***Hiatella*? sp. A**

HYPOTYPE YPM 24470

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.
n.33, p.137, pl.34, f.13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City
Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage
Zone. Concretion 2, exposure on W side of NW-
trending spur 0.1 mi S of wooded gully, 1.5 mi E of
Grand River, and 7.4 mi E of Miscol, Miscol NE Quad.,
CENTER N NE NE NW sec23T20NR25E, Corson Co.,
South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24471

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.
n.33, p.137, pl.34, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail
City Mbr, Little Eagle Lithofacies, Lower *nicolleti*
Assemblage Zone. Concretion, SE side of spur,
exposures on small E-trending spur, 1 mi S of Maxon
Ranch house, and 2.5 mi NW of Little Eagle, Little
Eagle Quad., NE CORNER NW sec18T20NR27E, NW
CORNER NE sec18T20NR27E, Corson Co., South
Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24472

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.
n.33, p.137, pl.34, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail
City Mbr, Little Eagle Lithofacies, Lower *nicolleti*
Assemblage Zone. Concretion 1, face on W side of
SSE-trending ridge, 450 ft N of Peabody Locality
C0242, and at SW corner of Long's Ridge, and 7.5 mi
W of Whitehorse, Little Moreau Lake Quad., CENTER
S NE SE sec15T15NR25E, Dewey Co., South Dakota,
USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24688

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.
n.33, p.137.

Late Cretaceous, Maastrichtian, lower Hell Creek Fm.
Base of unit 9 of 1961 section, "oyster" concretion layer
in lowermost Hell Creek, W-facing bluff at sharp bend
on Moreau River, and 5.5 mi WNW of Iron Lightning,
Redelm NW Quad., SE CORNER sec6T14NR18E, NE
CORNER sec7T14NR18E, Ziebach Co., South Dakota,
USA. Collector: Waage, K.M., 1961 to 1962.

***Hindsiella corsonensis* Speden**

HOLOTYPE YPM 24414

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.
n.33, p.101, pl.22, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City
Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage
Zone. Concretion 3, 7.5 ft below *Limopsis* layer, in face on
SW side of slump block 300 ft SSW of Peabody Locality
C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse,

Whitehorse Quad., SE NW sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24412

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101, pl.22, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion 2, slumped outcrops around W end of spur 0.4 mi SW of Long's Ridge prairie trail, and about 0.25 mi NNW of Peabody Locality C0246, Long's Ridge, and 7.1 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NW NW sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24413

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101, pl.22, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, northern of 2 collected sites, face on W side of prominent cuspate ridge, E side of Grand River, and 3 mi S of Bullhead, Miscol NE Quad., NW CORNER SE SW sec5T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24415

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101, pl.22, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, small faces on SW side of southern tip of 1st major spur NE of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE NE NW NE sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24416

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101, pl.22, f.7,8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion, 2nd sandstone concretion layer from top of face, unit 14 of section, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

PARATYPE YPM 24556

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretions, concretion 8, face on W side of SSE-trending spur, 600 ft NNW of Peabody Locality C0236, and 1.2 mi W of E end of Long's Ridge, Long's Ridge, and 6.1 mi W of Whitehorse, Little Moreau Lake Quad., SW CORNER SW NE SW sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24557

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, sandy zone, creek cut on N side of Snake Creek, 2.7 mi NNE of Trail City, Wakpala SW Quad., N N SW NE sec19T18NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24558

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Low in concretion 2, end of spur, toe of spur trending S from Whitehorse Ridge, 0.6 mi E of Whitehorse Road, and 0.6 mi S of trail, and 6.0 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NW NE sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24559

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, SE side of spur, exposures on small E-trending spur, 1 mi S of Maxon Ranch house, and 2.5 mi NW of Little Eagle, Little Eagle Quad., NE CORNER NW sec18T20NR27E, NW CORNER NE sec18T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24560

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, both sides of NW-SE-trending ridge

nd spurs, W of Timber Lake-Whitehorse Road, and .5-7 mi NW of Whitehorse, Whitehorse Quad., Little Moreau Lake Quad., NE CORNER sec25T16NR25E, SE CORNER NE sec25T16NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

ARATYPE YPM 24561

peden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. .33, p.101.

ate Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage one. Concretion 9, SW-facing bluff on small knob 0.1 ni S of wooded gully, and 0.1 mi W of N end of NW-ending ridge, and 1.5 mi E of Grand River, and 7.2 mi of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

ARATYPE YPM 24562

peden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. .33, p.101.

ate Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, 5.4 ft below lowest *Gervillia* concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

ARATYPE YPM 24563

peden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. .33, p.101.

ate Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, in river bed, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

ARATYPE YPM 24564

peden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. .33, p.101.

ate Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Small face at SE end of spur, across gully 0.2 mi NNE of Peabody Locality C0066, Whitehorse Ridge, nd 6 mi NW of Whitehorse, Whitehorse Quad., SE SW W SE sec19T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

ARATYPE YPM 24565

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Low in concretion 2, end of spur, toe of spur trending S from Whitehorse Ridge, 0.6 mi E of Whitehorse Road, and 0.6 mi S of trail, and 6.0 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NW NE sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24567

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.101.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 7, bluffs around SE end of spur, 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., SE SW SW sec14T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

***Hippocardia* cf. *H. fusiformia* (McCoy)**

HYPOTYPE YPM 28150

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.75, pl.45, f.5,6.

Early Mississippian, Tournasian, Tourney Limestone. Tourney, Belgium.

***Ichthyosarcolites*? sp. A**

HYPOTYPE YPM 24696

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.157, pl.40, f.11-12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Toe of spur trending S from Whitehorse Ridge, 0.6 mi E of Whitehorse Road, and 0.6 mi S of trail, and 6.0 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NW NE sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24697

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.157, pl.40, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion, both sides of NW-SE-trending ridge and spurs, W of Timber Lake-Whitehorse Road, and 6.5-7 mi NW of Whitehorse, Whitehorse Quad., Little Moreau Lake Quad., NE CORNER sec25T16NR25E, SE CORNER NE sec25T16NR25E, Dewey Co., South Dakota, USA.

Collector: Speden, I.G., 1962 to 1963.

***Iliona prisca* (Hisinger)**

HYPOTYPE YPM 23870

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.238, pl.27, f.6.

Silurian, Gotland Limestone. Gotland, Sweden. Collector: Braun, F.A.

HYPOTYPE YPM 23871

McAlester, A.L. 1965. Palaeont. v.8, pt.2, p.238, pl.27, f.7.

Upper Silurian, Gotland Limestone. Gotland, Sweden. Collector: Buckman, S.S.

***Indonaia hasnotensis* Vokes**

HOLOTYPE YPM 15033

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.43, pl.3, f.5,12.

HYPOTYPE YPM 62840[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.43.

Tertiary, Pliocene, Siwalik Series, Dhok Pathan Zone. Upper middle Siwalik Series, 0.5 mi E of Pind Savikka-Tatrot trail, and 0.75 mi SSE of Hasnot Village, Survey of India 43:H/5: quadrant A3, Jhelum District, Punjab, India. Collector: Lewis, G.E., 12/3/1932.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Indonaia prashadi* Vokes**
See *Indonaia* sp. n. A.

***Indonaia* sp. n. A**

HYPOTYPE YPM 15034

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.44, pl.3, f.4.

=*Indonaia prashadi* Vokes. HOLOTYPE. Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.139, pl.10, f.9.

HYPOTYPE YPM 62841[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.44.

=*Indonaia prashadi* Vokes. HYPOTYPE. Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.139, pl.10, f.9.

Tertiary, Miocene, Siwalik Series, Chinji Zone. Lower Siwalik Series, 0.25 mi S of Kundal Nallah [stream], and 3 mi WSW of Chinji Village, Survey of India 43:D/6: quadrant A1, Attock District, Punjab, India. Collector: Lewis, G.E., 5/8/1932.

HYPOTYPE YPM 62842[a, b]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.44.

=*Indonaia prashadi* Vokes. HYPOTYPE. Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.139, pl.10, f.9.

Tertiary, Miocene, Siwalik Series, Chinji Zone. Lower Siwalik Series, Quarry 21, along N side of footpath, 1.5 mi WSW of Chinji Village, Talagong Taksil, Survey of India 43:D/6: quadrant B1, Attock District, Punjab, India. Collector: Lewis, G.E., 5/2/1932.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

[b]This specimen lot is represented by 2 individuals.

***Indonaia* sp. n. B**

HYPOTYPE YPM 15035

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.45, pl.3, f.10.

HYPOTYPE YPM 62843–62846[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.45.

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. Quarry 101, just above sandstone ledge in 25-30-ft-thick brown siltstone, basal upper Siwalik Series, 300 ft E of Hasnot-Tatrot trail, and 0.75 mi SSW of Tatrot Village, Survey of India 43:H/5: quadrant B2, Jhelum District, Punjab, India. Collector: Lewis, G.E., 12/8/1932.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate these 4 specimens. They are believed to be permanently lost.

***Inoceramus balticus* Boehm**

HYPOTYPE YPM 34714, 34720

Hicks, J.F., J.D. Obradovich and L. Tauxe. 1995. J. Geol. v.103, p.246.

Late Cretaceous, Telegraph Creek Fm, Elk Basin Sandstone Mbr, *Scaphites hippocrepsis* 1 Zone. Top surface of uppermost unit of Elk Basin, N-S butte top ridge, E side of basinal cove of anticline, 0.5-0.7 mi due N of Elk Basin Village (abandoned), Elk Basin, Elk Basin Quad., straddles range line E SIDE SE NE NE

ec24T58NR100W, straddles range line W SIDE SW NW NW sec19T58NR99W, SE SE SE sec35T9SR100W, Carbon Co., Montana, USA. Collector: Hicks, J.F., 1992.

***"Inoceramus" barabini* Morton**

HYPOTYPE YPM 24052

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.61, pl.10, f.3.

Speden, I.G. 1970. Postilla, n.145, p.31, tf.3b.

HYPOTYPE YPM 24055

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.61, pl.10, f.2.

Speden, I.G. 1970. Postilla, n.145, p.31.

HYPOTYPE YPM 35475

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.61.[a]

Speden, I.G. 1970. Postilla, n.145, p.31.

Late Cretaceous, Pierre Shale. Converse Co. [perhaps now Niobrara Co., see Schuchert and LeVene, 1940, p.216], Wyoming, USA. Collector: Hatcher, J.B. and Beecher, C.E., 1889.

[a]Incorrectly cited as YPM 24452 on p.61; YPM 24452 is used for *Tellinamera scitula.*

***Inoceramus lynchi* Conrad**

SYNTYPE YPM 17034

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.218.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

[a]Incorrectly cited as paratype.

***Inoceramus prefragilis stephensoni* Kauffman and Powell**

HYPOTYPE YPM 14895

Cobban, W.A. 1983. U.S. Geol. Surv. Prof. Pap. n.1253, p.4, pl.2, f.19.

HYPOTYPE YPM 14896

Cobban, W.A. 1983. U.S. Geol. Surv. Prof. Pap. n.1253, p.4, pl.2, f.20.

Late Cretaceous, Benton Shale. Brown siltstone concretions, section 2, pit, Sioux City Brick and Tile Co., North Riverside, Woodbury Co., Iowa, USA. Collector: Waage, K.M., 1951.

***Ischyrinia winchelli* Billings**

HYPOTYPE YPM 28676

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.62, pl.19, f.6-8.

Late Ordovician, Vaureal Fm, Vaureal zone 2. N side, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

HYPOTYPE YPM 28678

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.62, pl.18, f.22.

Late Ordovician, English Head Fm. 1 mi W of White Cliff, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

HYPOTYPE YPM 28679

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.62, pl.19, f.1-4.

Late Ordovician, English Head Fm. E side of Little Macasty Bay, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

HYPOTYPE YPM 28684

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.62, pl.19, f.5.

Late Ordovician, English Head Fm. Cliff 1 mi W of White Cliff, North shore, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H.

***Ischyrodonta truncata* Ulrich**

HYPOTYPE YPM 25989

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.27, f.3.

Late Ordovician, Reedsville Fm. Shale and muddy sandstone, ferruginous stain, roadcut 11.0 mi NW of Eagle Rock, along VA Secondary Rt. 621 (or VA Secondary Rt. 613[?]), through Rich Patch Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25990

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.27, f.4.

Late Ordovician, Martinsburg Fm. Muddy siltstone and sandstone, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25991

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat.

Hist. n.34, p.130, pl.27, f.5.

Late Ordovician, Martinsburg Fm. Interbedded siltstone and shale, siltstone fossiliferous, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25992

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.27, f.6.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25993

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.28, f.1.

Late Ordovician, Reedsville Fm. Sandstone, roadcut 6.5 mi S of Loysburg, along PA Rt. 36, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25994

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.28, f.2.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, phosphate nodules, roadcut 0.5 mi W of Trimble, along Trimble-Mustoe Road, Jack Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25995

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.28, f.3.

Late Ordovician, Martinsburg Fm. Muddy siltstone and sandstone, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25996

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.28, f.4(top).

HYPOTYPE YPM 25997

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.28, f.4(bottom).

Late Ordovician, Martinsburg Fm. Sandstone, ferruginous stain, massively bedded, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25998

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.28, f.5,6.

Late Ordovician, Reedsville Fm. Originally stained sandstone, biogenic reworking, roadcut 4.5 mi S of Loysburg, along PA Rt. 36, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25999

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.29, f.1.

Late Ordovician, Reedsville Fm. Sandstone and common phosphate nodules, roadcut 1.5 mi S of Rocky Gap, along US Rts. 21 and 52, Wolf Creek Mountain, Bland Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26000

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.29, f.2.

Late Ordovician, Reedsville Fm. Sandstone and shale, roadcut 1.0 mi S of Duboistown, along paved road through N limb of Raccoon Mountain, Lycoming Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

HYPOTYPE YPM 26001

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.29, f.3.

Late Ordovician, Reedsville Fm. Muddy siltstone and high organic stain, roadcut 3.0 mi S of Burkes Garden, along VA Secondary Rt. 623, southeastern limb of Garden Mountain, Bland Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26002

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.29, f.4.

Late Ordovician, Martinsburg Fm. Sandstone, ferruginous stain, massively bedded, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26003

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.29, f.5.

Late Ordovician, Reedsville Fm. Sandstone, shale and muddy siltstone, roadcut 1.0 mi W of Everett, a few hundred yards off US Rt. 30 on paved service road, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26004

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.29, f.6.

Late Ordovician, Martinsburg Fm. Sandstone and siltstone, ferruginous stain, massively bedded, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26005

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.30, f.1.

Late Ordovician, Reedsville Fm. Sandstone and common phosphate nodules, roadcut 1.5 mi S of Rocky Gap, along US Rts. 21 and 52, Wolf Creek Mountain, Bland Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26006

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.30, f.2.

Late Ordovician, Reedsville Fm. Muddy siltstone and calcareous mudstone interbedded with calcareous sandstone, roadcut 3.0 mi N of Mendota, along unpaved Mendota-Collinwood Road, Russell Co., Virginia, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26007

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.30, f.3.

HYPOTYPE YPM 26008

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.30, f.4.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, massively bedded, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26009

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.30, f.5.

Late Ordovician, Reedsville Fm. Sandstone, roadcut 6.5 mi S of Loysburg, along PA Rt. 36, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26010

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.130, pl.30, f.6.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

***Isocardia crenulata* Conrad**

SYNTYPE YPM 6881

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.215.

Beecher, C.E. 1900. Am. J. Sci. ser.4, v.9, p.177.[a]

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

[a]Incorrectly cited as paratype.

***Isocardia novensis* Stephenson**

HOLOTYPE YPM 14824

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.393, pl.4, f.7,8.

PARATYPE YPM 14825[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.393.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 3 individuals, although Stephenson (1936) cites 5.

***Isognomon perplana* (Whitfield)**
See *Myalina*? (*Gervillia*) *perplana* Whitfield.

***Koenenia lasii* (Roemer)**

HYPOTYPE YPM 24332

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.32, pl.24, f.2,8,9.[a]

HYPOTYPE YPM 24333

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.32, pl.24, f.5,10.[a]

HYPOTYPE YPM 24334

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.32, pl.24, f.3.[a]

Early Devonian, Kahleberg-Sandstein. Kahleberg, Germany.

[a]The figured specimen is a latex cast; the actual specimen is reposited at the Geologisch-Paläontologischen Museums der Humboldt-Universität, Berlin, Germany.

***Lamellidens lewisi* Vokes**

HOLOTYPE YPM 15030

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.39, pl.3, f.3,6.

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, pl.10, f.8.

Tertiary, Pliocene, Siwalik Series, Pinjaur Zone. Upper Siwalik Series, within 1 nallah in a small area, 0.25 mi N of Khol Tandu, and 3.5 mi SW of Pinjaur, and on the boundary between Ambala and Patiala, Survey of India 53:B/13: quadrant B3, Ambala District, Punjab, India. Collector: Lewis, G.E., 9/16/1932.

HYPOTYPE YPM 35250

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.39, tf.1a.

HYPOTYPE YPM 75995[a, b], 75997–75999[c]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.39.

HYPOTYPE YPM 75996[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.39, tf.1A.[d]

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. Upper Siwalik Series, Siwalik Hills, Punjab, India. Collector: Lewis, G.E., 1932.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

[b]This specimen lot is represented by 2 individuals.

[c]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate these 3 specimens. They are believed to be permanently lost.

[d]The image is reversed in tf.1A.

***Lamellidens* sp. n. A**

HYPOTYPE YPM 15031

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.41, pl.3, f.8.

HYPOTYPE YPM 62838[a b]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.41.

HYPOTYPE YPM 76000[b]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.41.

Tertiary, Miocene, Siwalik Series, Chinji Zone. Lower Siwalik Series, Quarry 21, along N side of footpath, 1.5 mi WSW of Chinji Village, Talagong Taksil, Survey of India 43:D/6: quadrant B1, Attock District, Punjab, India. Collector: Lewis, G.E., 5/2/1932.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

[b]This specimen lot is represented by 2 individuals.

***Lamellidens* sp. n. B**

HYPOTYPE YPM 15032

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.42, pl.3, f.7.

HYPOTYPE YPM 62839[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.42.

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. Quarry 101, just above sandstone ledge in 25-30-ft-thick brown siltstone, basal upper Siwalik Series, 300 ft E of Hasnot-Tatrot trail, and 0.75 mi SSW of Tatrot Village, Survey of India 43:H/5: quadrant B2, Jhelum District, Punjab, India. Collector: Lewis, G.E., 12/8/1932.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Lamellidens* sp. n. C**

HYPOTYPE YPM 15047

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.138, pl.10, f.12.

Tertiary, Miocene, Siwalik Series, Chinji Zone. Lower Siwalik Series, Ramnagar Village, and 27 mi ENE of Jammu Village, Survey of India 43: quadrant D4, Jammu District, Kashmir, India. Collector: de Terra, H., 1932.

***Lamellidens subparallelus* Vokes**

SYNTYPE YPM 15045

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.135, pl.10, f.6.

SYNTYPE YPM 15046

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.135, pl.10, f.7.

Tertiary, Miocene, Siwalik Series, Chinji Zone. Lower Siwalik Series, Ramnagar Village, and 27 mi ENE of Jammu Village, Survey of India 43: quadrant D4, Jammu District, Kashmir, India. Collector: de Terra, H., 1932.

***Lamellidens turgidus* Vokes**

HOLOTYPE YPM 15195

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.137, pl.10, f.5.

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. Upper Siwalik Series, 0.75 mi SW of Tatrot Village, Survey of India 43:H/5: quadrant A2, Jhelum District, Punjab,

India. Collector: de Terra, H., 1932.

***Lamellidens wadiai* Vokes**

HOLOTYPE YPM 15194

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.136, pl.10, f.1.[a]

Tertiary, Miocene, Siwalik Series, Dhok Pathan Zone. Upper middle Siwalik Series, 0.5 mi E of P.O. Padhri in the 2nd small nallah, Padhri, Survey of India 43:H/5: quadrant A2, Jhelum District, Punjab, India. Collector: de Terra, H., 1932.

[a]Incorrectly cited as pl.10, f.19 on p.136.

***Leda acuminata* Nelson**

SYNTYPE YPM 576

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205, pl.7, f.8.

=*Leda peruviana* Dall. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.93.

SYNTYPE YPM 31730

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

=*Leda peruviana* Dall. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.93.

SYNTYPE YPM 31731

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

=*Leda peruviana* Dall. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.93, pl.5, f.1(left).

SYNTYPE YPM 31732

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

=*Leda peruviana* Dall. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.93, pl.5, f.1(right).

SYNTYPE YPM 31733–31742

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

=*Leda peruviana* Dall. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.93.

SYNTYPE YPM 31775

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.201.

=*Leda peruviana* Dall. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.93.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Leda peruviana* Dall**

See *Leda acuminata* Nelson.

***Legumen intermedium* Stephenson**

HOLOTYPE YPM 14836

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.396, pl.4, f.17,18.

PARATYPE YPM 14837

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.396, pl.4, f.19.

PARATYPE YPM 14838

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.396.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

***Leiopteria nitida* Hall**

HYPOTYPE YPM 21374

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.5, f.7.[a]

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21375

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.5, f.8,11, pl.6, f.11.[b]

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/16/1957.

HYPOTYPE YPM 21376

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.5, f.9.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

Hypotype YPM 21377

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.5, f.10.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 21378

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.5, f.12.[c]

Late Devonian, Chemungian. Near Waverly, Tioga Co., New York, USA.

Hypotype YPM 21379

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.5, f.13.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

Hypotype YPM 21380

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.1,9.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

Hypotype YPM 21381

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.2.

Hypotype YPM 21382

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.3.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 21383

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.4.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along E side of NY Hwy 34, beginning 0.5 mi N of junction with Tallmadge Hill Road and extending N approx. 0.3 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 8/16/1957.

Hypotype YPM 21384A, 21384B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.5.

Hypotype YPM 21385

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.6.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 21386

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.7.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

Hypotype YPM 21387

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.8.

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

Hypotype YPM 21388

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29, pl.6, f.10.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

HYPOTYPE YPM 22655

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.990, tbl.1,2, pl.123, f.8-10.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22656

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.990, tbl.1,2, pl.123, f.12,13.

Late Devonian, Snyder Creek Shale. Top of Bellama[?], Springs Hill on Portland Road, 5 mi SE of Fulton, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 25791

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.990, tbl.1,2.

Late Devonian, Snyder Creek Shale. Top of Bellama[?], Springs Hill on Portland Road, 5 mi SE of Fulton, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 61000

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.29.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

[a]Not pl.6, f.11. A latex cast is illustrated in pl.5, f.7, not the actual specimen as implied by the plate explanation.

[b]Incorrectly cited as YPM 21374 in the explanation for pl.6, f.11.

[c]The explanation for pl.5, f.12, incorrectly describes this specimen as from McAlester's Loc. 66 (wrong county).

***Leiopteria* sp.**

HYPOTYPE YPM 22385

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1045, pl.136, f.18.

HYPOTYPE YPM 22386

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1045, pl.136, f.19.

Devonian, Accraian Series. Clay shale unit, small quarry, W side of mouth of creek, 3750 ft W of Christianborg Castle, and just E of Accra Club golf course and "Area Beach," Accra, Ghana. Collector: Saul, J.M., 8/1959.

***Leptodesma*? sp.**

HYPOTYPE YPM 22387

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1045, pl.136, f.20.

Devonian, Accraian Series. Clay shale unit, small quarry, W side of mouth of creek, 3750 ft W of Christianborg Castle, and just E of Accra Club golf course and "Area Beach," Accra, Ghana. Collector: Saul, J.M., 8/1959.

***Leptodesma acutirostrum* Hall**

HOLOTYPE YPM 26239

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.234, pl.91, f.21.

Late Devonian, Chemung Grp, Chemung Fm. Sandstone [of the Upper Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Leptodesma naviforme* Hall**

HYPOTYPE YPM 21389

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.3.

HYPOTYPE YPM 21390

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.4.

HYPOTYPE YPM 21391

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.5.

HYPOTYPE YPM 21392

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.6.

HYPOTYPE YPM 21393

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, p.68, pl.7, f.7.

HYPOTYPE YPM 21394

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.8.

HYPOTYPE YPM 21395

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.9.

HYPOTYPE YPM 21396

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.10.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21397

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.11.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21398

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.12.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21399A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.13(left).

HYPOTYPE YPM 21399B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.13(right).

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21400

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.14.

HYPOTYPE YPM 21401

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.15.

HYPOTYPE YPM 21402A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.16(lower left).

HYPOTYPE YPM 21402B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.16(lower right).

HYPOTYPE YPM 21402C

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.16(upper right).

HYPOTYPE YPM 21403A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.17(lower left).

HYPOTYPE YPM 21403B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.17(upper right).

HYPOTYPE YPM 21404

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.8, f.2.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21405

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.8, f.3.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21406

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.8, f.4.

HYPOTYPE YPM 21407

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.8, f.6.

HYPOTYPE YPM 21408

McAlester, A.L. 1962. Bull. Peabody Mus. Nat.

Hist. n.16, p.32, pl.8, f.7.

Hypotype YPM 21409[a]

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.8, f.8.

Hypotype YPM 21410

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.8, f.9.

Hypotype YPM 21411[a]

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.8, f.10.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 21704

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32, pl.7, f.18.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

Hypotype YPM 60786–60815

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 60816–60830

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

Hypotype YPM 60831, 60832

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 60833, 60834

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.32.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

[a]This specimen lot is represented by approx. 40 individuals.

***Leptodesma spinigerum* (Conrad)**

Hypotype YPM 21412A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.8, f.11 (lower left).

Hypotype YPM 21412B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.8, f.11 (lower right).

Hypotype YPM 21412C

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.8, f.11 (middle right).

Hypotype YPM 21412D

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.8, f.11 (upper right).

Hypotype YPM 21413

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.1.

Hypotype YPM 21414

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.3.

Hypotype YPM 21415

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.5.

Hypotype YPM 21416

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.7.

Hypotype YPM 21417

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.9.

HYPOTYPE YPM 21418

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.11.

HYPOTYPE YPM 21419

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.13.

HYPOTYPE YPM 21420

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.15.

HYPOTYPE YPM 21421

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.17.

HYPOTYPE YPM 21422

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.19.

HYPOTYPE YPM 21423

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.9, f.21.

HYPOTYPE YPM 21424

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.2.

HYPOTYPE YPM 21425

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.3.

HYPOTYPE YPM 21426

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.4.

HYPOTYPE YPM 21427

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.5.

HYPOTYPE YPM 21428

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.6.

HYPOTYPE YPM 21429

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.7.

HYPOTYPE YPM 21430

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.8.

HYPOTYPE YPM 21431

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.9.

HYPOTYPE YPM 21432

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.10.

HYPOTYPE YPM 21433

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.11.

HYPOTYPE YPM 21434

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.12.

HYPOTYPE YPM 21435

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.13.

HYPOTYPE YPM 21436

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.14.

HYPOTYPE YPM 21437

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.15.

HYPOTYPE YPM 21438

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.16.

HYPOTYPE YPM 21439

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.17.

HYPOTYPE YPM 21440A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.18(left).

HYPOTYPE YPM 21440B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.18(right).

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania,

USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21441

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.19.

Late Devonian, Chemungian. Middle upper Chemung, roadcut on N side of NY Hwy 84 at base of Buck Hill, 1.75 mi E of intersection with US Hwy 15 at Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21442

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.20.

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

HYPOTYPE YPM 21443

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.21.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21444

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.22.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

HYPOTYPE YPM 21445

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.23.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21446

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.24.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21447

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.25.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21448

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.26.

HYPOTYPE YPM 21449

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.10, f.27.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

HYPOTYPE YPM 21450

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.1.

HYPOTYPE YPM 21451

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.2.

HYPOTYPE YPM 21452

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.3.

HYPOTYPE YPM 21453

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.4.

HYPOTYPE YPM 21454

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.5.

HYPOTYPE YPM 21455

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.6.

HYPOTYPE YPM 21456

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.7.

HYPOTYPE YPM 21457

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.8.

HYPOTYPE YPM 21458

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.9.

HYPOTYPE YPM 21459

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.10.

HYPOTYPE YPM 21460

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.11.

HYPOTYPE YPM 21461

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.12.

HYPOTYPE YPM 21462

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.13.

HYPOTYPE YPM 21463A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.14(lower).

HYPOTYPE YPM 21463B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.14(upper).

HYPOTYPE YPM 21464

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.15.

HYPOTYPE YPM 21465

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.16.

HYPOTYPE YPM 21466

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.17.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21467

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.18.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

HYPOTYPE YPM 21468

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.19.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21469

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.20.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

HYPOTYPE YPM 21470

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33, pl.11, f.21.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 61094–61099

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.33.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

***Leptodesma? shubenacadiensis* (Dawson)**

HYPOTYPE YPM 27276

Bell, W.A. 1929. Mem. Can. Geol. Surv. n.155, p.161, pl.26, f.8.

Late Mississippian, Windsor Grp, Miller Limestone. Subzone B of lower Windsor, Miller's Quarry, Windsor, Hants Co., Nova Scotia, Canada. Collector: Schuchert, C., 7/24/1905.

***Leptosolen* sp. indet.**

HYPOTYPE YPM 24746

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.136.

Late Cretaceous, Maastrichtian, lower Hell Creek Fm. Base of unit 9 of 1961 section, "oyster" concretion layer in lowermost Hell Creek, W-facing bluff at sharp bend on Moreau River, and 5.5 mi WNW of Iron Lightning, Redelm NW Quad., SE CORNER sec6T14NR18E, NE CORNER sec7T14NR18E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961 to 1962.

***Leptosolen* sp.**

HYPOTYPE YPM 14830B[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.397.

HYPOTYPE YPM 14839

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.397, pl.4, f.20.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Lima squamosus* Lam**

HYPOTYPE YPM 6713

Beecher, C.E. 1898. Am. J. Sci. v.156, p.256, tf.40.

Holocene. No locality information available.

***Limipecten morsei* Newell**

PARATYPE YPM 7829

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.69, pl.1, f.8.[a]

Carter, J.G. and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4., p.877, tf.21.

Carter, J.G. 1990c. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.367.

Newell, N.D. and D.W. Boyd. 1990. Am. Mus. Nov. n.2970, p.3.

PARATYPE YPM 8146

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.69, pl.10, f.5.

Newell, N.D. and D.W. Boyd. 1990. Am. Mus. Nov. n.2970, p.3, tf.2-4.

Middle Pennsylvanian, Breathitt Fm, Kendrick Shale Mbr. Dr. G.T. Kendrick Farm, head of Cow Creek (off of Levisa Fork of Big Sandy River), Floyd Co., Kentucky, USA. Collector: Jillson, W.R., 4/6/1919.

[a]Pl.1, f.8 is incorrectly identified as Kansas Univ. 354.

***Limopsis parvula* (Meek and Hayden)**

HYPOTYPE YPM 23944

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.49.

Late Cretaceous, Pierre Shale. Cretaceous Fm No. 4, Yellowstone River, Western Interior, Montana, USA. Collector: Warren, Lieut. G.K. and Hayden, F.V.

***Limopsis striatopunctatus* Evans and Schumard**

HYPOTYPE YPM 23997

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.4, f.14.

HYPOTYPE YPM 23998

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.4, f.11.

HYPOTYPE YPM 23999

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.1.

HYPOTYPE YPM 24000

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.2,3.

HYPOTYPE YPM 24001

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.4, f.13, pl.5, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, concretion 1, in gully 6 ft below *Limopsis*

layer, prominent isolated knob to SW of main ridge, on W side of prairie trail, with several outcrops on W flanks, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24002

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.5.

HYPOTYPE YPM 24003

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.8.

HYPOTYPE YPM 24004

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float not far out of place, concretion, end and W side of toe of S-trending spur, and SW-facing exposure on small knob 0.1 mi ESE of tip of spur, 0.2 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 3.6 mi NNE of Green Grass, Parade NW Quad., CENTER E E SW sec32T15NR24E, CENTER N S S sec32T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24005

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretions, toe of NE-trending spur, 0.6-0.8 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 4.5 mi NNE of Green Grass, Parade NW Quad., N NE NE sec32T15NR24E, S EDGE SE SE sec29T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24006

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, northern (NW-facing cliff) of 2 separate exposures, NE side of Little Moreau River, and 2 mi SE of Little Moreau Lake dam, and 7 mi S of Timber Lake Village, Little Moreau Lake Quad., CENTER NW SW sec22T16NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24007

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.9.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, concretion 3, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NE NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24008

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.46, pl.5, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, concretion 1, several outcrops and small faces to SW of prairie trail, 900 ft N of Peabody Locality C0234, Long's Ridge, and 6.7 mi W of Whitehorse, Little Moreau Lake Quad., CENTER S NW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 26322

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3, pl.8, f.4.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion 2, face on SW side of S-trending spur, 2.25 mi W of E end of Long's Ridge, Long's Ridge, and 6.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER E SW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 26801, 26802

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.1.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, face on SW side of S-trending ridge, 600 ft

N of Peabody Locality C0233, Long's Ridge, and 6.6 mi W of Whitehorse, Little Moreau Lake Quad., SW NW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.5, f.7, should state loc.191, not loc.119.

***Limpecten texanus* Girty**

HYPOTYPE YPM 14470

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.68, pl.9, f.5a-5c.

Late Pennsylvanian, Cisco Grp, Graham Fm, Jacksboro Limestone Mbr. Middle of Jacksboro, mainly from lower 10 ft, 3.5 mi SE of Jacksboro railroad station, Jack Co., Texas, USA. Collector: Schuchert, C., 1922.

***Liopistha* sp.**

HYPOTYPE YPM 14819

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.391.[a]

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]Cited as 2 specimens but only 1 is present.

***Lucina* (*Callucina*) *papyracea* Lea**

HYPOTYPE YPM 27053

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.259, pl.27, f.5,6.

HYPOTYPE YPM 27054

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.259, pl.27, f.7.

Tertiary, Eocene, Claiborne Grp, Gosport Sand. Clairborne, Monroe Co., Alabama, USA.

***Lucina* (*Cavilinga*) *pomilia* Conrad**

HYPOTYPE YPM 27057

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.269, pl.28, f.16,17.

HYPOTYPE YPM 27058
Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.269, pl.28, f.18.

HYPOTYPE YPM 27059

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.269, pl.28, f.19,20.

Tertiary, Eocene, Claiborne Grp, Gosport Sand. Clairborne, Monroe Co., Alabama, USA.

***Lucina* (*Cavilinga*) *trisulcata* Conrad**

HYPOTYPE YPM 27055

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.266, pl.28, f.10,11.

Tertiary, Eocene. Claiborne, Monroe Co., Alabama, USA.

HYPOTYPE YPM 27056

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.266, pl.28, f.12.

Tertiary, Miocene, Calvert Fm. Camp Roosevelt [Boy Scout camp], Calvert Co., Maryland, USA. Collector: Cloud, P.E.

***Lucina* (*Lucinisca*) *nuttalli* Conrad**

HYPOTYPE YPM 27060

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.276, pl.29, f.15.

Quaternary, Pleistocene, San Pedro Fm. Dead Man Island, San Pedro, Los Angeles Co., California, USA. Collector: Schuchert, C., 1927.

***Lucina* (*Stewartia*) *anodonta* Say**

HYPOTYPE YPM 27051

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.256, pl.26, f.6,7.

HYPOTYPE YPM 27052

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.256, pl.26, f.8.

Tertiary, Miocene, Choptank Fm?. [Drum Cliff at] Jones Wharf, W bank of Patuxent River, Saint Charles Co., Maryland, USA.

***Lucina olsoni* Stephenson**

HOLOTYPE YPM 14821

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.392, pl.4, f.5.

PARATYPE YPM 14822

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.392, pl.4, f.6.

PARATYPE YPM 14823[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.392.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 27 individuals, although Stephenson (1936) cites 32.

***Lucina syriaca* Conrad**

HOLOTYPE YPM 6902

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.219, pl.10, f.57.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

***Lucina*? sp. indet.**

HYPOTYPE YPM 24423

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, pl.23, f.14.

Late Cretaceous, Maastrichtian, Montana Grp, Pierre Shale, Elk Butte Mbr. 2nd siderite concretion layer, W side of ridge, toe of small SSE-trending spur between Peabody Localities C0060 and C0061, and 0.5 mi E of SD Rt. 65, and 0.5 mi N of Moreau River, and 10 mi NNW of Bear Creek Village, Lantry NW Quad., CENTER N NE sec1T14NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

***Lyriopecten anomiaeformis* Hall**

HYPOTYPE YPM 21562

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.53, pl.22, f.3.[a]

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21563

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.53, pl.22, f.4.[b]

Late Devonian, Chemungian. Lower middle Chemung, along Erie Railroad tracks 0.5 mi E of Chemung River Bridge, 0.2 mi E of Wellsburg along NY Hwy 427 and Erie Railroad, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21564

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.53, pl.22, f.6.[c]

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21565

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.53, pl.22, f.7.[d]

Late Devonian, Chemungian. Fine-grained sandstone and siltstone, outcrop along E side of NY Hwy 38 at junction with NY Hwy 96 at Turner's Bridge, 2 mi N of Owego, Owego Quad., Tioga Co., New York, USA. Collector: Greiner, H.R., 1953.

[a]Not p.62, pl.26, f.2.

[b]Not p.62, pl.26, f.3.

[c]Not p.62, pl.26, f.4.

[d]Not p.62, pl.26, f.5.

***Lyriopecten tricostatus* (Vanuxem)**

HYPOTYPE YPM 21561

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.52, pl.21, f.3.[a]

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 22665

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.991, tbl.1,2, pl.123, f.1.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

[a]Not p.62, pl.26, f.1.

***Lyrodesma postriatum* (Emmons)**

HYPOTYPE YPM 26059

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.132, pl.44, f.1,2.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 0.5 mi N of Bastress, along PA Rt. 654, Lycoming Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

HYPOTYPE YPM 26060[a]

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat.

Hist. n.34, p.132, pl.44, f.3.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, occasional shale pebble conglomerate, roadcut 1.5 mi S of Rainesburg, along unpaved PA Rt. 326, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26061

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.132, pl.44, f.4.

Late Ordovician, Reedsville Fm. Shale and muddy siltstone, thin beds of organically stained ferruginous sandstone, roadcut less than 3.0 mi N of Elberta, along Elberta-Culp Road [road cut a few hundred yards S of loc. 77], Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26062

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.132, pl.44, f.5.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 0.5 mi N of Bastress, along PA Rt. 654, Lycoming Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

HYPOTYPE YPM 26063

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.132, pl.44, f.6.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut about 10 mi N of Broadford, along unpaved VA Primary Rt. 91, Clinch Mountain, Tazewell Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26064[a]

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.132, pl.44, f.7.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 0.5 mi N of Bastress, along PA Rt. 654, Lycoming Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Lyropecten* cf. *L. tricostatus* (Vanuxem)**

HYPOTYPE YPM 16465

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.101, pl.58, f.3.

Middle Devonian, Traverse Grp, Ferron Point Fm. Upper part of Ferron Point, abandoned shale pit of the Alpena Portland Cement Co., NW1/4 SE1/4 sec18T32NR09E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Mactra maia* Whitfield**

HOLOTYPE YPM 6876

Whitfield, R.P. 1876. U.S. War Dept. p.144, pl.2, f.5.

Whitfield, R.P. 1899. Ann. N.Y. Acad. Sci. v.12, n.8, p.160.[a]

Late Cretaceous, Fox Hills Fm. Sandstone ledges nearly at the level of Box Elder Creek and almost 1 mi SW of Box Elder Station, Fergus Co., Montana, USA. Collector: Dana, E.S. and Grinnell, G.B., 7/20/1875.

[a]At time of publication, specimen was reposited at the United States National Museum; it has since been acquired by the Yale Peabody Museum.

***Mactra pervetus* Conrad**

SYNTYPE YPM 6874

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.218.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

SYNTYPE YPM 6875

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.218, pl.8, f.49.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[b]

SYNTYPE YPM 24851

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.218.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

[a]Incorrectly cited as paratype.

[b]Incorrectly cited as holotype.

***Mactra* sp. ind.**

HYPOTYPE YPM 554, 31673[a]

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.201.

=*Mulinia zorritensis*. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.165.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

[a]This specimen lot is represented by 3 individuals.

***Mactra zorritensis* Nelson**

SYNTYPE YPM 553

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.201.

=*Mulinia zorritensis.* Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.165, pl.10, f.9.

SYNTYPE YPM 31743

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.201.

=*Mulinia zorritensis.* Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.165, pl.10, f.8.

SYNTYPE YPM 31744–31748

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.201.

=*Mulinia zorritensis.* Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.165.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Malletia evansi* (Meek and Hayden)**

HYPOTYPE YPM 23971

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.4, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretions, in river bed, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1956 to 1959.

HYPOTYPE YPM 23972

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.3, f.18.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, lower Trail City Mbr, Little Eagle Lithofacies. Float, concretion, LNAZ? or POAZ?, bluffs along E side of Grand River, about 1.25 mi S of Bullhead, Bullhead Quad., CENTER N SW sec30T21NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23973

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.4, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Concretion 3, bench to S of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23974

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.3, f.19.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Sphenodiscus* layer?. Float, concretion, SW-facing exposures on ridge extending NW from bluffs on Timber Lake Mbr, and about 0.5 mi W of Peabody Locality C0089, and 2.5 mi WSW of Green Grass, Lantry NE Quad., NE SE sec21T14NR23E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23975

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.3, f.16.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretion 6, face on SW side of SSE-trending spur, 1.25 mi W of E end of Long's Ridge, Long's Ridge, and 6 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SE SW sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23976

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.3, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion a, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23977

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.3, f.17.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone?. Concretion, face A, 6.2 ft below lowest POAZ layer, S-facing face at S end of exposures, 2 mi E of Goose Creek, 4 mi S of Moreau River, and

9.2 mi WNW of Ridgeview, Ridgeview NW Quad., CENTER N SW sec29T14NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 23978

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.4, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23979

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.4, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion b, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23980

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.4, f.5.[c]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Sphenodiscus* layer. Concretion b, SW-facing exposures on ridge extending NW from bluffs on Timber Lake Mbr, and about 0.5 mi W of Peabody Locality C0089, and 2.5 mi WSW of Green Grass, Lantry NE Quad., NE SE sec21T14NR23E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23981

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.42, pl.4, f.4,6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Sphenodiscus* layer. Concretion c, in or just below big *Sphenodiscus* layer, SW-facing exposures on ridge extending NW from bluffs on Timber Lake Mbr, and about 0.5 mi W of Peabody Locality C0089, and 2.5 mi WSW of Green Grass, Lantry NE Quad., NE SE sec21T14NR23E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

[a]The explanation for pl.3, f.18, should state "Lower *nicolleti*? or *Protocardia-Oxytoma*? AZ" instead of "*Protocardia-Oxytoma* AZ."

[b]The explanation for pl.3, f.17, should state "Upper *nicolleti* AZ" instead of "*Protocardia-Oxytoma* AZ."

[c]The explanation for pl.4, f.5 should state "*Sphenodiscus* layer" instead of "*Cucullaea* AZ."

***Malletia* sp.**

HYPOTYPE YPM 28157

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.9C.

Quaternary, Holocene. Bottom sediments at 4970 m depth, Atlantic Ocean, about 200 mi N of Bermuda, Atlantic Ocean. Collector: Woods Hole Oceanographic Institution, 7/2/1965.

***Mercenaria campechiensis ochlockoneensis* (Mansfield)**

HYPOTYPE YPM 26376

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3, pl.8, f.1.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Miocene, Choctawhatchee Fm. *Cancellaria* facies Chocwhatchee, Jackson Bluff on Ochlockonee River, just S of FL Hwy 20 at a point 20 mi W of Tallahasse, Leon Co., Florida, USA. Collector: Dunbar, C.O., 2/6/1966.

***Mercenaria campechiensis* (Gullin)**

HYPOTYPE YPM 28493

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.[a]

Quaternary, Holocene. No locality information available.

[a]Specimen and peels are missing.

***Mercenaria mercenaria* (Linnaeus)**

HYPOTYPE YPM 26304

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3, tf.2,3.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

HYPOTYPE YPM 26305

Pannella, G. and C. MacClintock. 1968. J.

Paleont. v.42, n.5, pt.2, tbl.3, tf.2,3.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

HYPOTYPE YPM 26306

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3, tf.2,3.

Quaternary, Holocene 3 clams (of the 150 transplants) from 2 ft below lowest tide on 24 August 1965 in muddy sand, outlet of Sheep Pen Harbor at E end of Nonamesset Island (Dukes Co.), 0.75 mi SW of Woods Hole, "notched" by filing growth margins, and transplanted alive to 10 × 15-ft plot on mud flat in mid-intertidal 5 ft E of axis of small channel, and about 130 ft N of Broad Sound (channel), and 10 ft W of grass edge on SW side of Duck Island, W end of Barnstable Harbor, and 1.4 mi NW of Pond Village, town of Barnstable (Barnstble Co.), and re-collected 27 August, 1966 and killed immediately, Barnstable Co., Massachusetts, USA. Collector: Stanley, S., 8/24 to 8/27/1965.

HYPOTYPE YPM 26307

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3, tf.2, pls.3-5, f.1.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

HYPOTYPE YPM 26308

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3, tf.2,3.

HYPOTYPE YPM 26309

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tf.2.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

HYPOTYPE YPM 26310

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3, tf.2,3.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

HYPOTYPE YPM 26311

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tf.2.

HYPOTYPE YPM 26312

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tf.2.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

HYPOTYPE YPM 26313

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tf.2.

HYPOTYPE YPM 26314

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, pl.1, f.4, tf.2.

HYPOTYPE YPM 26315

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tf.2,3, pl.2, pls.3-5, f.2, pl.6, f.1,4.

HYPOTYPE YPM 26316

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tf.2, pl.6, f.5.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Quaternary, Holocene. 10 clams (of the 150 transplants) from 2 ft below lowest tide on 24 August 1965 in muddy sand, outlet of Sheep Pen Harbor at E end of Nonamesset Island (Dukes Co.), 0.75 mi SW of Woods Hole, "notched" by filing growth margins, and transplanted alive to 10 × 15-ft plot on mud flat in midintertidal 5 ft E of axis of small channel, and about 130 ft N of Broad Sound (channel), and 10 ft W of grass edge on SW side of Duck Island, W end of Barnstable Harbor, and 1.4 mi NW of Pond Village, town of Barnstable (Barnstble Co.), and re-collected 24 August 1967 and killed immediately, Barnstable Co., Massachusetts, USA. Collector: Stanley, S., 8/24/1965 to 8/24/1967.

HYPOTYPE YPM 26318

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, pl.6, f.2,3.

Quaternary, Holocene. Collected alive at 1500h from the laboratories of the Bureau of Commercial Fisheries, Milford, New Haven Co., Connecticut, USA. Collector: MacClintock, C. and Pannella, G., 6/21/1967.

HYPOTYPE YPM 26320

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, pl.1, f.1,2.

Quaternary, Holocene. Dredged from 21 ft depth in

off-shore oyster bed (temp. 4°–5°C), Long Island Sound, off Milford, New Haven Co., Connecticut, USA. Collector: Bureau of Commercial Fisheries, 1/24/1967.

HYPOTYPE YPM 26321

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, pl.1, f.3.[a]

Holocene. Tide pool from high intertidal, Barnstable Harbor, Barnstable Co., Massachusetts, USA. Collector: Rhoads, D.C.

HYPOTYPE YPM 28155

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.1A-E.[b]

Quaternary, Holocene. Intertidal mud flat, Mulberry Point, Guilford, New Haven Co., Connecticut, USA. Collector: Rhoads, D.C., 1/24/1969.

HYPOTYPE YPM 28161

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.5C,5D.[c]

Quaternary, Holocene. Specimens transplanted from subtidal mud bottom, Quissett Harbor, to a sea table with no substrate at Woods Hole Lab, Woods Hole, Barnstable Co., Massachusetts, USA. Collector: Rhoads, D.C.

HYPOTYPE YPM 28164

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.2A.

Quaternary, Holocene. Of original 128 juvenile *Mercenaria mercenaria* hatched between September, 1966 and March, 1967 and grown at Milford Laboratory (see Rhoads and Pannella, 1970, Lethaia 3:2), these 16 were notched on 4 October 1967 at 1130h and put in sand half of tray 4 (Milford control), placed in lower intertidal at Milford Lab, and killed 10 December 1967, Milford, New Haven Co., Connecticut, USA. Collector: Rhoads, D.C. and Pannella, G.

HYPOTYPE YPM 28165

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.3A.[b]

Quaternary, Holocene. Of original 128 juvenile *Mercenaria mercenaria* hatched between September, 1966 and March, 1967 and grown at Milford Laboratory (see Rhoads and Pannella, 1970, Lethaia 3:2), these 32 were notched on 4 October 1967 at 1130h and put in tray 1 (sand and mud, later mixed), and on 22 December 1967 transported to Woods Hole, MA, and on 23 December transplanted to 20 m depth (Buzzards Bay, Sta. R of Sanders, 1960) 75 cm above mud bottom, and killed 7 December 1967, New Haven Co., Connecticut, USA. Collector: Rhoads, D.C. and Pannella, G.

HYPOTYPE YPM 28166

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.3B.[b]

Quaternary, Holocene. Of original 128 juvenile *Mercenaria mercenaria* hatched between September, 1966 and March, 1967 and grown at Milford Laboratory (see Rhoads and Pannella, 1970, Lethaia 3:2), these 32 were notched on 4 October 1967 at 1130h and put in tray 3 (sand and mud, later mixed), and on 22 December 1967 transported to Woods Hole, MA, and on 23 December transplanted to 20 m depth (Buzzards Bay, Sta. R of Sanders, 1960) 10 cm above mud bottom, and killed 29 January 1968, New Haven Co., Connecticut, USA. Collector: Rhoads, D.C. and Pannella, G.

HYPOTYPE YPM 28167

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.2B.[b]

Quaternary, Holocene. Of original 128 juvenile *Mercenaria mercenaria* hatched between September, 1966 and March, 1967 and grown at Milford Laboratory (see Rhoads and Pannella, 1970, Lethaia 3:2), these 16 were notched on 4 October 1967 at 1130h and put in mud half of tray 4 (Milford control), placed in lower intertidal at Milford Lab, and killed 10 December 1967, Milford, New Haven Co., Connecticut, USA. Collector: Rhoads, D.C. and Pannella, G.

HYPOTYPE YPM 28168

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.3C.[b]

Quaternary, Holocene. Of original 128 juvenile *Mercenaria mercenaria* hatched between September, 1966 and March, 1967 and grown at Milford Laboratory (see Rhoads and Pannella, 1970, Lethaia 3:2), these 32 were notched on 4 Octobetr 1967 at 1130h and put in tray 2 (sand and mud, later mixed), and on 22 December 1967 transported to Woods Hole, MA, and on 23 December transplanted to 20 m depth (Buzzards Bay, Sta. R of Sanders, 1960) 45 cm above mud bottom, and killed 7 December 1967, New Haven Co., Connecticut, USA. Collector: Rhoads, D.C. and Pannella, G.

HYPOTYPE YPM 28490

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.[d]

Quaternary, Recent. No locality information available.

HYPOTYPE YPM 28491

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Quaternary, Holocene. Intertidal mud flat, NE side of Huckins Island, W end of Barnstable Harbor, and 1.2 mi due N of Pond Village, town of Barnstable, Barnstable Co., Massachusetts, USA. Collector: MacClintock, C. and Pannella, G., 2/2/1967.

HYPOTYPE YPM 28492

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.[d]

Quaternary, Holocene. No locality information available.

[a]Left valve and part of right valve are missing.

[b]Figured peel is missing.

[c]Right valve is missing.

[d]Specimen and peels are missing.

***Miltha* (*Armimiltha*) *disciformis* (Heilprin)**

HYPOTYPE YPM 6936

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.294, pl.34, f.4-6.

Tertiary, Pliocene, Caloosahatchee Marl. Caloosahatchie, Florida, USA. Collector: Willcox, J.

***Miltha* (*Eomiltha*) *pandata* (Conrad)**

HYPOTYPE YPM 27063

Bretsky, S.S. 1976. Palaeont. Am. v.8, n.50, p.290, pl.33, f.4-7.

Tertiary, Eocene, Claiborne Grp, Gosport Sand. Claiborne, Monroe Co., Alabama, USA.

***Modiola* (*Mytilops*) *metella* Hall**

HYPOTYPE YPM 26243

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.268, pl.87, f.9.

Late Devonian, Chemung Grp, Chemung Fm. Warren, Warren Co., Pennsylvania, USA.

***Modiolopsis miser* Twenhofel**

HYPOTYPE YPM 10381

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.232, pl.24, f.2

Silurian, Jupiter Fm, Jupiter zone 3. Jupiter River Cliff, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

***Modiolopsis modiolaris* (Conrad)**

HYPOTYPE YPM 26011

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.31, f.1.

HYPOTYPE YPM 26012

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.31, f.2.

HYPOTYPE YPM 26013

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.31, f.3.

Late Ordovician, Martinsburg Fm. Muddy siltstone and sandstone, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26014

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.32, f.1.

Late Ordovician, Reedsville Fm. Well-exposed section, commonly sandstone and shale pebble conglomerate, 200-210 ft Reedsville section, roadcut about 1.0 mi SE of Reedsville, along US Rt. 322 bypass, Mifflin Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26016

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.32, f.3.

Late Ordovician, Martinsburg Fm. Muddy sandstone-slump blocks, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26017

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.33, f.1.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26018

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.33, f.2.

Late Ordovician, Reedsville Fm. Ferruginous stained siltstone, roadcut 1.5 mi W of McKinley, along unpaved McKinley-Craigsville Road, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26019

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.33, f.3.

Late Ordovician, Martinsburg Fm. Siltstone, ferrugi-

nous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26020

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.34, f.1.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut about 10 mi N of Broadford, along unpaved VA Primary Rt. 91, Clinch Mountain, Tazewell Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26021

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.34, f.2.

Late Ordovician, Martinsburg Fm. Mudstone, muddy siltstone, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 26022

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.34, f.3.

Late Ordovician, Reedsville Fm. Shale, muddy siltstone, roadcut 2.5 mi N of Narrows, along US Rt. 460, East River Mountain, Giles Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26023

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.35, f.1.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, roadcut 1.5 mi SE of Mt. Gate, along VA Primary Rt. 16, Clinch Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 26024

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.35, f.2.

Late Ordovician, Reedsville Fm. Interbedded calcareous mudstones and muddy siltstone, roadcut 1.5 mi E of Thorn Hill, along US Rt. 255, Grainger Co., Tennessee, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26025

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.35, f.3.

Late Ordovician, Reedsville Fm. Originally stained sandstone, biogenic reworking, roadcut 4.5 mi S of Loysburg, along PA Rt. 36, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 26026

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.35, f.4.

HYPOTYPE YPM 26065A

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, pl.2.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

***Modiolopsis modiolaris*? (Conrad)**

HYPOTYPE YPM 26015

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.127, pl.32, f.2.

Late Ordovician, Reedsville Fm. Ferruginous sandstone interbedded with muddy siltstone, roadcut 1.5 mi N of Jacksonville, along PA Rt. 445, Centre Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

?*Modiolopsis parviuscula* Billings

HYPOTYPE YPM 26923

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.339, pl.30, f.15,16.

Middle Ordovician, Chazy Grp. Aylmer, Quebec, Canada. Collector: Sowter, T.E.

***Modiolopsis sowteri* Raymond**

SYNTYPE? YPM 7982A

Raymond, P.E. 1905. Am. J. Sci. v.170, p.374.[a]

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.340, pl.30, f.22.

Middle Ordovician, Aylmer Sandstone. 60 ft above the highwater mark of Lake Deschenes, at Aylmer, Quebec, Canada. Collector: Sowter, T.E.

SYNTYPE? YPM 7982B

Raymond, P.E. 1905. Am. J. Sci. ser.4, v.20, n.119, p.374.[a]

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.340, pl.30, f.21.

Middle Ordovician, Chazy Grp. Aylmer, Quebec, Canada. Collector: Sowter, T.E.

[a]Labeled as a "cotype" of *Modiolopsis sowteri* Raymond, although it was neither figured nor mentioned in the original description.

***Modiolus galpinianus* (Evans and Shumard)**

HYPOTYPE? YPM 24115

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.76.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster bed capping butte, Mud Butte, a small butte on E side of road, about 3 mi NE of Freeman Ranch, and 8 mi NNW of Red Scaffold, Bull Creek 2 NW Quad., Bessie Butte Quad., N SW SW sec25T11NR18E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1962.

HYPOTYPE? YPM 24116

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.76.[a]

HYPOTYPE YPM 24117

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.76, pl.17, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Concretion from road level, crest of spur and local knobs along trail leading SE of Trail City and roughly paralleling railroad tracks, and 2-3 mi SE of Trail City, Trail City Quad., W sec9T17NR28E, NW NE sec16T17NR28E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24118

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.76, pl.16, f.13,14.

HYPOTYPE YPM 24119

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.76, pl.17, f.2.

HYPOTYPE YPM 24120

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.76, pl.16, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G., Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24698

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.76, pl.17, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster bed capping butte, Mud Butte, a small butte on E side of road, about 3 mi NE of Freeman Ranch, and 8 mi NNW of Red Scaffold, Bull Creek 2 NW Quad., Bessie Butte Quad., N SW SW sec25T11NR18E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1962.

[a]Labeled as hypotype but neither figured nor mentioned specifically in the publication.

***Modiolus meeki* (Evans and Shumard)**

HYPOTYPE YPM 24106

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.74, pl.16, f.8.

HYPOTYPE YPM 24107

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.74, pl.16, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 1, face on SW side of S-trending spur, 2.25 mi W of E end of Long's Ridge, Long's Ridge, and 6.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER E SW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24108

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.74, pl.16, f.1,3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, in grass roots, concretion 12, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., CENTER E NW NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24109

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.74, pl.16, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Concretion, ENE-trending spur 0.2 mi N of Peabody Locality C0087, and 2.2 mi SW of Green Grass, Lantry NE Quad., CENTER W EDGE SW sec26T14NR23E, CENTER E SE sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24110

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.74, pl.16, f.6.[a]

HYPOTYPE YPM 24111

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.74, pl.16, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, lower Trail City Mbr, Little Eagle Lithofacies. Float, concretions in riverbed, undifferentiated LGAZ and upper LNAZ, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1956 to 1959.

HYPOTYPE YPM 24112

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.74, pl.16, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24113

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.74, pl.16, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion, bulldozed cuts on N and S sides of Strong's stock dam, 0.5 mi ESE of Paul Strong Ranch house, S of Moreau River, and 5.5 mi N of Parade, Parade Quad., NW CORNER NW SW sec8T13NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

[a]In the explanation for pl.16, f.6, the definition of Loc. A282 is restricted to *Limopsis-Gervillia* AZ.

Modiomorpha concentrica (Conrad)

HYPOTYPE YPM 21705

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.1.

Middle Devonian, Hamilton Grp. Clark Co., Indiana, USA.

HYPOTYPE YPM 21706

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.2.

Middle Devonian, Hamilton Grp. E of Cumberland, Maryland, USA. Collector: Hartley, F.

HYPOTYPE YPM 21707

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.3.[a]

Middle Devonian, Hamilton Grp. Pompey Hill, Onondaga Co., New York, USA. Collector: Bradley, F.H.

HYPOTYPE YPM 38486

Carter, J.G. 1990a. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.266, tf.A-D.[b]

Carter, J.G., R.J. Lutz and M.J.S. Tevesz. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.392.[b]

HYPOTYPE YPM 38487

Carter, J.G., and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, p.865, tf.14B.[c]

Carter, J.G., R.J. Lutz and M.J.S. Tevesz. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.392.[c]

HYPOTYPE YPM 38488

Carter, J.G., R.J. Lutz and M.J.S. Tevesz. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.392.[d]

HYPOTYPE YPM 38489–38490

Carter, J.G., R.J. Lutz and M.J.S. Tevesz. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.392.[c]

Middle Devonian, Hamilton Grp, Marcellus Shale, Solsville Mbr. "Peterboro South," small abandoned quarry on E side of Swamp Road along small creek, and 0.9 mi SSE of Bliss Corners, and 3.0 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Not pl.16, f.6.

[b]Cited with Invertebrate Zoology catalog number YPM 10059-A.

[c]Cited with Invertebrate Zoology catalog number YPM 10059.

[d]Cited with Invertebrate Zoology catalog number YPM 10059-B.

Modiomorpha mytiloides (Conrad)

HYPOTYPE YPM 16471

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.73, pl.20, f.3.

Middle Devonian, Traverse Grp, Thunder Bay Limestone. Partridge Point, 3 mi S of Alpena city line, sec11 and E 1/2 sec10T30NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

Hypotype YPM 21546

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.45, tbl.2, pl.19, f.14.

Hypotype YPM 21547

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.45, tbl.2, pl.19, f.15.

Hypotype YPM 21548

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.45, tbl.2, pl.19, f.16.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

Hypotype YPM 21711

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.10,11.

Middle Devonian, Hamilton Grp. Pompey Hill, Onondaga Co., New York, USA. Collector: Bradley, F.H.

Hypotype YPM 25765, 25766

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.45, tbl.2.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

***Modiomorpha* sp.**

Hypotype YPM 28499

Pannella, G. 1972. Astro. Sp. Sci. v.16, pl.3, f.A-C, tbl.1.[a]

Hypotype YPM 28500

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.[b]

Middle Devonian. No locality information available.

[a]Specimen is missing.

[b]Specimen and peels are missing.

***Monodonta* sp.**

Hypotype YPM 14859
Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.403.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

***Monopleura marcida* White**

Hypotype YPM 35766

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7G(7 juveniles).[a]

Hypotype YPM 35767

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7H(2 views).[a]

Hypotype YPM 35768

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7I.[a]

Hypotype YPM 35769

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7E(2 views).[a]

Hypotype YPM 35770

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7D.[a]

Hypotype YPM 35775

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7F(cluster).[a]

Hypotype YPM 38289

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7G(adult).[a]

Early Cretaceous, Fredericksburg Grp, Edwards Limestone. 200 yd S of low water bridge, E Austin Dam, Austin, Travis Co., Texas, USA. Collector: Wilson, J.L.

[a]Incorrectly cited as YPM 69510.

***Monopleura pinguiscula* White**

Hypotype YPM 35771

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7B(adult).[a]

Hypotype YPM 35772

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7B(10 juveniles).[a]

Hypotype YPM 35773
Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7C(right).[a]

HYPOTYPE YPM 35774

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7C(left).[a]

Early Cretaceous, Fredericksburg Grp, Edwards Limestone. 200 yd S of low water bridge, E Austin Dam, Austin, Travis Co., Texas, USA. Collector: Wilson, J.L.

HYPOTYPE YPM 69518

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7A.

Early Cretaceous, Glen Rose Limestone. Lower Glen Rose, near Travis Peak, Travis Co., Texas, USA. Collector: Brill, V.A. and Brice, W.J.

[a]Incorrectly cited as YPM 69511.

***Mulinia zorritensis* (Nelson)**
See *Mactra* sp. ind. and *Mactra zorritensis* Nelson.

***Musculinium partumeium* (Say)**

HYPOTYPE YPM 12842

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.242.

HYPOTYPE YPM 12842A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.242, pl.2, f.2a.

HYPOTYPE YPM 12842B

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.242, pl.2, f.2b.

HYPOTYPE YPM 12842C

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.242, pl.2, f.2c.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Hunt, C.B.

***Mya*? sp. A**

HYPOTYPE YPM 24493

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.140, pl.36, f.2.

HYPOTYPE YPM 24494

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.140, pl.36, f.1,3.
Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster beds and shell conglomerates, caprocks of the 3 buttes at Dog Butte, within 0.4 mi N of county road, and about 5 mi due E of Timber Lake, Glencross Quad., CENTER S S sec18T17NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and others, 1957 to 1962.

***Myalina acutirostris* Newell and Burma**
See *Myalina* sp.

***Myalina*? (*Gervillia*) *perplana* Whitfield**

HOLOTYPE YPM 21280

Whitfield, R.P. 1876. U.S. War Dept. p.143, pl.1, f.8.

Whitfield, R.P. 1899. Ann. New York Acad. Sci. v.12, n.8, p.160.[a]

=*Isognomon perplana*. Imlay, R.W. 1964. U.S. Geol. Surv. Prof. Pap. n.483-C, p.24, pl.1, f.33.

=*Isognomon perplana*. Imlay, R.W. 1967. Prof. Pap. U.S. Geol. Surv. n.540, p.78.

Middle Jurassic, Ellis Grp, Piper Fm. First limestone (middle limestone member) on [westward] ascent up E side of Bridger Mountain [either A8653 or C0515, probably A8653 based on lithology], Gallatin Co., Montana, USA. Collector: Dana, E.S. and Grinnell, G.B., 9/5/1875.

[a]At time of publication, specimen was reposited at the U.S. National Museum; it has since been acquired by the Yale Peabody Museum.

***Myalina meeki* Dunbar**

SYNTYPE YPM 25696

Dunbar, C.O. 1924. Am. J. Sci. v.207, p.201.

=*Myalina* (*Myalinella*) *meeki*. Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.60, pl.14, f.7.[a]

SYNTYPE YPM 25697

Dunbar, C.O. 1924. Am. J. Sci. v.207, p.201.

=*Myalina* (*Myalinella*) *meeki*. Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.60, pl.14, f.8.[a]

SYNTYPE YPM 25698

Dunbar, C.O. 1924. Am. J. Sci. v.207, p.201.

=*Myalina* (*Myalinella*) *meeki*. Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.60, pl.14, f.9.[a]

SYNTYPE YPM 25699

Dunbar, C.O. 1924. Am. J. Sci. v.207, p.201.
=*Myalina* (*Myalinella*) *meeki*. Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.60, pl.14, f.10.[a]

SYNTYPE YPM 25700

Dunbar, C.O. 1924. Am. J. Sci. v.207, p.201.

=*Myalina* (*Myalinella*) *meeki*. Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.60, pl.14, f.14.[b]

SYNTYPE YPM 31865, 31866–31867[d], 31868–31871, 31872–31875[e]

Dunbar, C.O. 1924. Am. J. Sci. v.207, p.201.

=*Myalina* (*Myalinella*) *meeki*. Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.60.[c]

Early Permian, Sumner Grp, Wellington Fm, Elmo Limestone Mbr. Upper 2 insect beds in N roadcut, 20-100 ft W of culvert, and lower insect bed, in draw about 600 ft a little W of N of that cut, 3 mi S and 0.7 mi E of crossroads at SE corner of Elmo, SE1/4SW1/4SE1/4sec21T16SR02E, Dickinson Co., Kansas, USA. Collector: Dunbar, C.O., 1921.

[a]Incorrectly cited as YPM 3496 and as a topoparatype.

[b]Incorrectly cited as YPM 3496 and the holotype.

[c]Incorrectly cited as YPM 3496.

[d]YPM 31866 and 31867 are on the same slab.

[e]YPM 31872–31875 are on the same slab.

***Myalina* (*Myalina*) *arbala* Newell**

PARATYPE YPM 31841[a]

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.52.

Late Pennsylvanian, Missourian, Kansas City Grp, Winterset Limestone. Near Kansas City, Missouri, USA.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Myalina* (*Myalina*) *copha* Newell**

PARATYPE YPM 25359–25361, 25695, 31946, 31947, 31975–31984

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.49.

Middle Pennsylvanian, Atoka Fm, Webbers Falls Sandstone Mbr. Rex Bridge over Grand River, about 8-10 mi N of Muskogee, Wagoner Co., Oklahoma, USA. Collector: Schuchert, C., 3/28/1919.

***Myalina* (*Myalinella*) *acutirostris* Newell and Burma**
See *Myalina* sp.

***Myalina* (*Myalinella*) *cuneformis* Gurley**

HYPOTYPE YPM 16342

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.62, pl.14, f.1.

HYPOTYPE YPM 16343

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.62, pl.14, f.2.

HYPOTYPE YPM 16344[a]

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.62, pl.14, f.3.

Middle Pennsylvanian, Tensleep Sandstone. About 30 ft above Tensleep base, E slope of Black Mountain, Washakie Range, sec 1 or 2 T06NR04W, Fremont Co., Wyoming, USA. Collector: Love, J.D., 1937.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Myalina* (*Myalinella*) *meeki* Dunbar**
See *Myalina meeki* Dunbar.

***Myalina*? *newelli* McAlester**

HOLOTYPE YPM 21493

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.40, pl.16, f.2.

Late Devonian, Chemungian. Lower middle Chemung, along Erie Railroad tracks 0.5 mi E of Chemung River Bridge, 0.2 mi E of Wellsburg along NY Hwy 427 and Erie Railroad, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21494

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.40, pl.16, f.3.

HYPOTYPE YPM 21495

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.40, pl.16, f.4.

Late Devonian, Chemungian. Lower middle Chemung, roadcut along N side of NY Hwy 17, beginning 0.5 mi W of junction with NY Hwy 282 in Smithboro and extending W for 0.2 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 7/15/1957.

HYPOTYPE YPM 21496

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.40, pl.16, f.5.

Late Devonian, Chemungian. Middle lower Chemung,

small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21497, 21498[a]

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.40.

Late Devonian, Chemungian. Lower middle Chemung, along Erie Railroad tracks 0.5 mi E of Chemung River Bridge, 0.2 mi E of Wellsburg along NY Hwy 427 and Erie Railroad, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21499–21501

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.40.

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21502

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.6.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

[a]YPM 21498 is a small indistinct fragment and may not be a bivalve.

***Myalina* (*Orthomyalina*) *slocomi* Newell**

PARATYPE YPM 25693

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.57, pl.10, f.6.

Middle Pennsylvanian, Marmaton Grp, Wewoka Fm. 3.5 mi NW of Allen, Pontotoc Co., Oklahoma, USA. Collector: Greger, D.K., 1919.

***Myalina* sp.**

HYPOTYPE YPM 16326

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.286, pl.2, f.1.[a]

=*Myalina acutirostris* Newell and Burma. PARATYPE. Roth, R., N.D. Newell, and B.H. Burma. 1941. J. Paleont. v.15, n.3, p.315, pl.45, f.11.[a]

=*Myalina* (*Myalinella*) *acutirostris* Newell and Burma. PARATYPE. Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.62, pl.14, f.17.[a]

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, S side, section 78, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

HYPOTYPE YPM 24841

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

[a]Figured specimen is a rubber cast.

***Mytilarca chemungensis* (Conrad)**

HYPOTYPE YPM 21484

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.8.

HYPOTYPE YPM 21485

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.9.

HYPOTYPE YPM 21486A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.10(lower).

HYPOTYPE YPM 21486B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.10(upper).

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21487A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.11(left).

HYPOTYPE YPM 21487B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.11(right).

HYPOTYPE YPM 21488

McAlester, A.L. 1962. Bull. Peabody Mus. Nat.

Hist. n.16, p.38, pl.15, f.12.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21489

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.13,14.

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

HYPOTYPE YPM 21490

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.15.

HYPOTYPE YPM 21491

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.16.

HYPOTYPE YPM 21492

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38, pl.15, f.18.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 62130

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38.

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

HYPOTYPE YPM 62132

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 62133

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 62134

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.38.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

Mytilarca cf. *M. chemungensis* (Conrad)

HYPOTYPE YPM 16441

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.91, pl.57, f.3,4.

HYPOTYPE YPM 16442, 16443, 16625[a], 16632[b], 29256, 29257

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.91.

Middle Devonian, Traverse Grp, Alpena Limestone. Bioherm facies (upper Alpena, Centerfield horizon), Four Mile Dam on Thunder Bay River, SW1/4 SE1/4 sec07T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

HYPOTYPE YPM 16445[c]

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.91.

Middle Devonian, Whitefish Bay Limestone. Quarry of the Michigan Alkali Co., City of Alpena, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

[a]This specimen lot is represented by 17 individuals.

[b]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen.

It is believed to be permanently lost.

[c]This specimen lot is represented by 2 individuals.

***Mytilarca marylandica* Ohern**

SYNTYPE YPM 26716

Ohern, D.W. and T.P. Maynard. 1913. Md. Geol. Surv. p.452, pl.75, f.3,4.

Early Devonian, Helderberg Fm, New Scotland Mbr. Cumberland, Allegany Co., Maryland, USA. Collector: Roeder, G.M.

***Mytilarca* cf. *mytiliformis* (Hall)**

HYPOTYPE YPM 22769

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.233.

Silurian, Jupiter Fm, Jupiter zone 3. Heath Point, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

***Mytilarca* cf. *M. oviformis* (Conrad)**

HYPOTYPE YPM 16449

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.92, pl.57, f.2.

HYPOTYPE YPM 16631

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.92.

HYPOTYPE YPM 29258

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.92.[a]

Middle Devonian, Traverse Grp, Alpena Limestone. Bioherm facies (upper Alpena, Centerfield horizon), Four Mile Dam on Thunder Bay River, SW1/4 SE1/4 sec07T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

[a]Incorrectly cited as YPM 16449a.

***Myurella* sp. ind. A**

HYPOTYPE YPM 532

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.193.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Myurella* sp. ind. B**

HYPOTYPE YPM 533

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.193.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Myurella tuberosa* Nelson**

SYNTYPE YPM 531

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.193.

=*Terebra tuberosa.* Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.36, pl.1, f.2.

=*Terebra* (*Strioterebrum*) *nelsoni* Hanna and Israelsky. HYPOTYPE. Pilsbry, H.A. and A.A. Olsson. 1941. Proc. Phila. Acad. Nat. Sci. v.93, p.14, pl.1, f.3.[a]

SYNTYPE YPM 31553, 31554

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.193.

=*Terebra tuberosa.* Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.36.

=*Terebra* (*Strioterebrum*) *nelsoni* Hanna and Israelsky. HYPOTYPE. Pilsbry, H.A. and A.A. Olsson. 1941. Proc. Phila. Acad. Nat. Sci. v.93, p.14.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

[a]Incorrectly cited as the holotype of *T. tuberosa.*

***Nucula cancellata* Jeffreys**

HYPOTYPE YPM 23946

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29, pl.1, f.2,3,6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretions, toe of NE-trending spur, 0.6-0.8 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 4.5 mi NNE of Green Grass, Parade NW Quad., N NE NE sec32T15NR24E, S EDGE SE SE sec29T15NR24E, Dewey

Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23947

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29, pl.1, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Sphenodiscus* layer. Concretion b, SW-facing exposures on ridge extending NW from bluffs on Timber Lake Mbr, and about 0.5 mi W of Peabody Locality C0089, and 2.5 mi WSW of Green Grass, Lantry NE Quad., NE SE sec21T14NR23E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23948

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29, pl.1, f.4,10.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion a, SW-facing exposure on SE-trending ridge, 3.5 mi ENE of Little Eagle, Wakpala NW Quad., SE NW sec13T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23949

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, 1 of 2 isolated bluffs on S bank of Deep Bank Creek, 8 mi SSE of Little Eagle, and 7.3 mi N of Trail City, Wakpala SW Quad., CENTER SW SE sec25T19NR27E, NE CORNER NE NE NW sec36T19NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23950

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29, pl.1, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. Float, small faces E of SD Rt. 63, and 3 mi S of Moreau River, and 6 mi ESE of Green Grass, Parade NW Quad., SE sec35T14NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 23951

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29, pl.1, f.7,9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Sphenodiscus* layer. Concretion b, SW-facing exposures on ridge extending NW from bluffs on Timber Lake Mbr, and about 0.5 mi W of Peabody Locality C0089, and 2.5 mi WSW of Green Grass, Lantry NE Quad., NE SE sec21T14NR23E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23952

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29, pl.1, f.1.

HYPOTYPE YPM 24130

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29, pl.1, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion b, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24502

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.29.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Concretion, outcrops along crest of ridge, 0.6 mi E of tributary to Deep Bank Creek, and 6.5 mi N of Trail City, Wakpala SW Quad., CENTER N SE sec31T19NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 28160

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.9A.

Quaternary, Holocene. Bottom sediments at 4970 m depth, Atlantic Ocean, about 200 mi N of Bermuda, Atlantic Ocean. Collector: Woods Hole Oceanographic Institution, 7/2/1965.

[a]The explanation for pl.1, f.10, should state *Protocardia-Oxytoma* AZ instead of *Limopsis-Pseudoptera* AZ.

Nucula percrassa Conrad

HYPOTYPE YPM 23959

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.33, pl.2, f.6-8.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. In slump block on S side of wooded gully, 1.5 mi E of Grand River, and 7.3 mi E of Miscol, Miscol NE Quad., CENTER N EDGE NW NE NW sec23T20NR25E, CENTER S EDGE SW SE

SW sec14T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23960

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.33, pl.2, f.4,5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *abyssinus-mandanensis* Biofacies?. Concretions, SW-facing bluffs of spur trending SE, 3 mi WNW of Little Eagle, Little Eagle Quad., CENTER S EDGE sec13T20NR26E, CENTER N N sec24T20NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 23961

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.33, pl.2, f.10,11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Gervillia* concretions, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1956 to 1959.

HYPOTYPE YPM 23962

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.33, pl.2, f.9.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Nucula* layer, Little Eagle Lithofacies. Section 1, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

[a]The explanation for pl.2, f.6, should state Loc. 217 (omitted).

[b]The explanation for pl.2, f.9, should state A289 instead of A293.

Nucula planomarginata Meek and Hayden

HYPOTYPE YPM 23953

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.31, pl.1, f.16.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Sphenodiscus* layer. Concretion b, SW-facing exposures on ridge extending NW from bluffs on Timber Lake Mbr, and about 0.5 mi W of Peabody Locality C0089, and 2.5 mi WSW of Green Grass, Lantry NE Quad., NE SE sec21T14NR23E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23954

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.31, pl.2, f.1,2.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. From base of oriented concretion, in gully, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23955

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.31, pl.1, f.15,17.

HYPOTYPE YPM 23956

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.31, pl.1, f.12-14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. *Ostrea-Pteria* association concretion, 8.2 ft below banded beds, S-facing bluffs on N bank of Grand River, 1 mi NNW of Twito Ranch house, and 6 mi WSW of Black Horse, Black Horse Quad., S S SE SE sec13T20NR21E, Corson Co., South Dakota, USA. Collector: Speden, I.G. and Podwell, R.A., 1962 to 1963.

HYPOTYPE YPM 23957

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.31, pl.1, f.18.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. On spur 600 ft NW of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER NE SE NW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23958

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.31, pl.2, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Concretion, ENE-trending spur 0.2 mi N of Peabody Locality C0087, and 2.2 mi SW of Green Grass, Lantry NE Quad., CENTER W EDGE SW sec26T14NR23E, CENTER E SE sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.2, f.1 and f.2, should state Loc. 210 instead of Loc. 56.

Nucula proxima Say

HYPOTYPE YPM 28162

Rhoads, D.C. and G. Pannella. 1970. Lethaia, v.3, tf.9B.

Quaternary, Holocene. On bottom at 6 m (20 ft) water depth, near, and E of, Charles Island, Long Island Sound, New Haven Co., Connecticut, USA. Collector: Rhoads, D.C.

***Nucula randalli* Hall**

SYNTYPE YPM 6830A

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.315, pl.93, f.3.

Middle Devonian, Hamilton Grp. Near Pratts Falls, in the shale [of the Hamilton Grp], Onondaga Co., New York, USA. Collector: Beecher, C.E.

***Nuculana* (*Jupiteria*) *scitula* (Meek and Hayden)**

HYPOTYPE YPM 23963

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.3, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, in gully, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23964

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.3, f.5,6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Float about 15 ft below tableland, concretion 7, dissected SW-trending spur, and eastward-extending bluff, N side of Moreau River, and 0.5 mi E of SD Rt. 65, and 10 mi NNW of Bear Creek Village, Lantry NW Quad., NE CORNER NE sec1T14NR21E, SE CORNER SE sec36T15NR21E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23965

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.2, f.18.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion b, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23966

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.2, f.21.

HYPOTYPE YPM 23967

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.2, f.20.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float not far out of place, concretion, end and W side of toe of S-trending spur, and SW-facing exposure on small knob 0.1 mi ESE of tip of spur, 0.2 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 3.6 mi NNE of Green Grass, Parade NW Quad., CENTER E E SW sec32T15NR24E, CENTER N S S sec32T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23968

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.2, f.16.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *abyssinus-mandanensis* Biofacies. Concretions, just below top of big *Sphenodiscus* layer, top of 1st prominent spur 0.2 mi NW of S part of Peabody Locality C0088, and 2 mi SW of Green Grass, Lantry NE Quad., CENTER W W NE sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23969

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.3, f.1,2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, in gully, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23970

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.2, f.17.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion b, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24474

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.3, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Concretion 3, bench to S of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24475

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36, pl.2, f.19.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion b, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24476

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.36.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Concretion 3, bench to S of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.2, f.17, should state A799 instead of A779.

***Nuculana* (*Nuculana*) *grandensis* Speden**

HOLOTYPE YPM 23985

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35, pl.2, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Nucula* layer, Little Eagle Lithofacies. Section 1, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

PARATYPE YPM 23982

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35, pl.2, f.13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Top of CTAZ, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 23983

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35, pl.2, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

PARATYPE YPM 23984

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35, pl.2, f.14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Top of CTAZ, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24503–24515, 24520

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Nucula* layer, Little Eagle Lithofacies. Section 1, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

PARATYPE YPM 24516–24518

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Top of CTAZ, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24519

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.

n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cymbophora-Tellina* Assemblage Zone. Concretion, exposures in bed and on sides of prairie trail down ridge to On-a-Tree Church (6 mi to the S), and S of Long Ranch house, and 11 mi W of Whitehorse, Little Moreau Lake Quad., CENTER W E NW sec18T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24521

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Concretion from halfway along face, at top of face, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24522

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

PARATYPE YPM 24523

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion a, unit 1 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

PARATYPE YPM 24524

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. SW-facing bluffs of spur trending SE, 3 mi WNW of Little Eagle, Little Eagle Quad., CENTER S EDGE sec13T20NR26E, CENTER N N sec24T20NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

PARATYPE YPM 24525–24527

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *abyssinus-mandanensis* Biofacies?. Concretions, SW-facing bluffs of spur trending SE, 3 mi WNW of Little Eagle, Little Eagle Quad., CENTER S EDGE sec13T20NR26E, CENTER N N sec24T20NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

PARATYPE YPM 24528

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.35.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *abyssinus-mandanensis* Biofacies. Concretions, just below top of big *Sphenodiscus* layer, top of 1st prominent spur 0.2 mi NW of S part of Peabody Locality C0088, and 2 mi SW of Green Grass, Lantry NE Quad., CENTER W W NE sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

Nuculana piscatoria Stephenson

HOLOTYPE YPM 14807

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.388, pl.3, f.15,16.

PARATYPE YPM 14808[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.388.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 4 individuals, although Stephenson (1936) cites 5.

"Nuculana" rostellata? (Conrad)

HYPOTYPE YPM 21328

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.24, pl.2, f.17.

HYPOTYPE YPM 21329

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.24, pl.2, f.18.

HYPOTYPE YPM 21330

McAlester, A.L. 1962. Bull. Peabody Mus. Nat.

Hist. n.16, p.24, pl.2, f.19.

Hypotype YPM 21331

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.24, pl.2, f.20.

Hypotype YPM 62178

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.24.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

***Nuculana* sp.**

Hypotype YPM 22376

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.9.

Hypotype YPM 22377

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.10.

Hypotype YPM 22378

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.11.

Hypotype YPM 22379

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.12.

Hypotype YPM 22380

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.13.

Hypotype YPM 22381

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.14.

Hypotype YPM 22388

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.1.

Hypotype YPM 22389

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.2.

Hypotype YPM 22390

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.3.

Hypotype YPM 22391

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.4.

Hypotype YPM 22392

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.5.

Hypotype YPM 22393

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.6.

Hypotype YPM 22394

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.7.

Hypotype YPM 22395

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.8.

Hypotype YPM 22396

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.9.

Hypotype YPM 22397

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.10,11.

Hypotype YPM 22399

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.12.

Hypotype YPM 22400

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.13.

Hypotype YPM 22401

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.14.

Hypotype YPM 22402

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.15.

Hypotype YPM 22403

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1047, pl.137, f.16.

Hypotype YPM 22404

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J.

Paleont. v.37, n.5, p.1047, pl.137, f.17.

Devonian, Accraian Series. Clay shale unit, small quarry, W side of mouth of creek, 3750 ft W of Christianborg Castle, and just E of Accra Club golf course and "Area Beach," Accra, Ghana. Collector: Saul, J.M., 8/1959.

HYPOTYPE YPM 25972

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.117, pl.24, f.4.

Late Ordovician, Reedsville Fm. Interbedded shale and ferruginous sandstone, occasional shale pebble conglomerate, quarry 1.0 mi S of Rauchtown within PA State Park grounds a few hundred yards E of PA Rt. 880, Clinton Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

***"Nuculana"* sp.**

HYPOTYPE YPM 21332

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.24, pl.2, f.21.

HYPOTYPE YPM 24838

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.24.

Late Devonian, Chemungian. Upper middle Chemung, large quarry near summit of Ingraham Hill, 0.5 mi NE of Ingrahm Hill School, Broome Co., New York, USA. Collector: McAlester, A.L., 7/7/1957.

***Nuculites oblongatus* Conrad**

HYPOTYPE YPM 38467–38470

Carter, J.G., D.R. Lawrence and H. Sanders. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.314.[a]

Middle Devonian, Hamilton Grp. "Peterboro North" locality, E side of Swamp Road, 0.6 mi S of Bliss Corners, and 2.7 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with Invertebrate Zoology catalog number YPM 10055.

***Nuculites trigueter* Conrad**

SYNTYPE YPM 6819

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.326, pl.93, f.10.

Middle Devonian, Hamilton Grp. Near Pratts Falls, in the shale [of the Hamilton Grp], Onondaga Co., New York, USA. Collector: Beecher, C.E.

***Nuculoidea corbuliformis* (Hall and Whitfield)**

HYPOTYPE YPM 21333

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.1.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21334

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.2.

HYPOTYPE YPM 21335

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.3.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21336

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.4.

HYPOTYPE YPM 21337

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.5.

HYPOTYPE YPM 21338

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.6.

HYPOTYPE YPM 21339

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.7.

HYPOTYPE YPM 21340

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.8.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21341

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.9.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21342

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.10.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21343

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.11.

HYPOTYPE YPM 21344

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.12.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21345

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.13.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

HYPOTYPE YPM 21346

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.14.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between parking area and W limit of fresh talus, and between 0.6 and 0.8 mi W of Chemung-Tioga county line, and about 2 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21347

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.15.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21348

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.16.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21349

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.17.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

HYPOTYPE YPM 21350

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.18.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21351A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.19(left).

HYPOTYPE YPM 21351B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.19(right).

HYPOTYPE YPM 21352A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.20(left).

HYPOTYPE YPM 21352B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.20(middle).

HYPOTYPE YPM 21352C

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.3, f.20(right).

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 62187, 62188

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 62189

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 62190

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

Nuculoidea deceptriformis Bailey

HYPOTYPE YPM 38460–38462

Carter, J.G., D.R. Lawrence and H. Sanders. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.306.[a]

Middle Devonian, Hamilton Grp. "Peterboro North" locality, E side of Swamp Road, 0.6 mi S of Bliss Corners, and 2.7 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

See also *Nuculoidea* cf. *N. opima* Hall.

[a]Cited with the Invertebrate Zoology catalog numbers YPM 10052 and 10268.

Nuculoidea gibbosa Yang

HOLOTYPE YPM 16426

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.62, pl.2, f.8,9.

Middle Devonian, Traverse Grp, Potter Farm Fm. About 0.6 mi S of Four Mile Dam on both sides of road, center of sec18T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

Nuculoidea opima (Hall)

HYPOTYPE YPM 38352

Carter, J.G., and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, p.864, tf.11A-D.[a]

Carter, J.G., D.R. Lawrence and H. Sanders. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.307.[a]

HYPOTYPE YPM 38464–38465

Carter, J.G., D.R. Lawrence and H. Sanders. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.307.[a]

Middle Devonian, Hamilton Grp, Skaneateles Shale, Delphi Station Mbr. Near Morrisville, Madison Co., New York, USA. Collector: Carter, J.G.[a]

[a]Cited with Invertebrate Zoology catalog number YPM 10053.

Nuculoidea cf. *N. opima* (Hall)

HYPOTYPE YPM 38459

Carter, J.G., and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, tf.12A(?B,?C).[a]

=*Nuculoidea deceptriformis* Bailey. HYPOTYPE. Carter, J.G., D.R. Lawrence and H. Sanders. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.306.[a]

Middle Devonian, Hamilton Grp. "Peterboro North" locality, E side of Swamp Road, 0.6 mi S of Bliss Corners, and 2.7 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with the Invertebrate Zoology catalog numbers YPM 10052 and 10268.

***Opertochasma cuneatum* (Meek and Hayden)**

HYPOTYPE YPM 24478

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.148, pl.38, f.3.

HYPOTYPE YPM 24479

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.148, pl.37, f.14, pl.38, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. Float concretions, creek bottom below cut banks along Little Oak Creek, Bieber Ranch, and 7 mi SSW of Little Eagle, Little Eagle SE Quad., NE CORNER SW SE sec30T19NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1961 to 1962.

HYPOTYPE YPM 24480

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.148, pl.37, f.9,11.

HYPOTYPE YPM 24488

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.148, pl.38, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, at end of ridge, both sides of NW-SE-trending ridge and spurs, W of Timber Lake-Whitehorse Road, and 6.5-7 mi NW of Whitehorse, Whitehorse Quad., Little Moreau Lake Quad., NE CORNER sec25T16NR25E, SE CORNER NE sec25T16NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

HYPOTYPE YPM 24489

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.148, pl.37, f.16.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. Float, concretions, creek bottom below cut banks along Little Oak Creek, Bieber Ranch, and 7 mi SSW of Little Eagle, Little Eagle SE Quad., NE CORNER SW SE sec30T19NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1961 to 1962.

HYPOTYPE YPM 24490

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.148, pl.37, f.10,13.

HYPOTYPE YPM 24491

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.148, pl.37, f.15.

HYPOTYPE YPM 24499

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.148, pl.37, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, at end of ridge, both sides of NW-SE-trending ridge and spurs, W of Timber Lake-Whitehorse Road, and 6.5-7 mi NW of Whitehorse, Whitehorse Quad., Little Moreau Lake Quad., NE CORNER sec25T16NR25E, SE CORNER NE sec25T16NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

***Orthonota* cf. *O. parvula* Hall**

HYPOTYPE YPM 16472

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.62, pl.2, f.8,9.

Middle Devonian, Traverse Grp, Norway Point Fm. Norway Point Dam on Thunder Bay River, SW1/4 NE1/4 sec12T31NR07E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Orthonota undulata* Conrad**

HYPOTYPE YPM 16473

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.76, pl.20, f.8.

HYPOTYPE YPM 16634, 29251–29255

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.76.

Middle Devonian, Traverse Grp, Norway Point Fm. Norway Point Dam on Thunder Bay River, SW1/4 NE1/4 sec12T31NR07E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Ostraea scapha*? Roemer**

HYPOTYPE YPM 6786

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.213.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

***Ostraea virgata* Goldfuss**

HYPOTYPE YPM 6789, 24852, 24853

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.212.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

***Ostraea virgata*? Goldfuss**

HYPOTYPE YPM 6779

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.212, pl.1, f.7,8.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

***Ostrea* sp. ind. A**

HYPOTYPE YPM 31749[a]

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Ostrea* sp. ind. B**

HYPOTYPE YPM 578, 31750

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.206.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Ostrea translucida* Meek and Hayden**

HYPOTYPE YPM 24386

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.22.

HYPOTYPE YPM 24387

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24388

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.21.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Dosiniopsis* association, N side of Rock Creek, 0.3 mi N Ullmann Ranch house, and 2 mi NE of Bullhead, Bullhead Quad., SW CORNER NW SW SW sec8T21NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24389

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.13,18.

HYPOTYPE YPM 24390

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.18, f.21.

HYPOTYPE YPM 24391

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.12.

HYPOTYPE YPM 24392

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.17.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24393

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.19.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 2, small spur on W side of ridge, 600 ft NW of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., NW SW NW NE sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24394

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.20.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Concretions, in road and roadcut, ridge-crest exposures along cut-off of secondary road, along top of small, sharp ridge that trends NW-SE from E1/2SW1/4sec32T12NR24E to NW corner NE1/4sec05T11NR24E, 3 mi due S of Eagle Butte Village,

Herbert Creek Quad., E SW sec32T12NR24E, NW CORNER NE sec5T11NR24E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1957 to 1964.

HYPOTYPE YPM 24722

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.5.

HYPOTYPE YPM 24723

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.18, f.18.

HYPOTYPE YPM 24724

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.4.

HYPOTYPE YPM 24725

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.14.

HYPOTYPE YPM 24726

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.7.

HYPOTYPE YPM 24727

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.9.

HYPOTYPE YPM 24728

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.3.

HYPOTYPE YPM 24729

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.1.

HYPOTYPE YPM 24730

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.16.

HYPOTYPE YPM 24731

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.18, f.19.

HYPOTYPE YPM 24732

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.2.

HYPOTYPE YPM 24733

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.11.

HYPOTYPE YPM 24734

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.6.

HYPOTYPE YPM 24735

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.18, f.20.

HYPOTYPE YPM 24736

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.15.

HYPOTYPE YPM 24737

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.91, pl.19, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Speden, E.W., 1962 to 1963.

[a]The explanation for pl.19, f.21, should state A1330, loc. 190.

Oxytoma inequivalve (Sowerby)

HYPOTYPE YPM 38352

Carter, J.G. 1990c. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.371.

Late Jurassic, Oxfordian. Buckinghamshire, England, United Kingdom. Collector: Carter, J.G.

Oxytoma (*Hypoxytoma*) *nebrascana* (Evans and Shumard)

HYPOTYPE YPM 24075

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.8.[a]

HYPOTYPE YPM 24076

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, in river bed, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24077

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.84.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. *Oxytoma* concretion, butte-like toe of SE-trending spur and adjoining outcrops and float areas, "Happy Hill," SE of Bench Mark Church, and about 6 mi WSW of Little Eagle, Little Eagle NW Quad., SW sec26T20NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24078

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.13, f.14, pl.14, f.12.

HYPOTYPE YPM 24079

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretions, concretion 8, face on W side of SSE-trending spur, 600 ft NNW of Peabody Locality C0236, and 1.2 mi W of E end of Long's Ridge, Long's Ridge, and 6.1 mi W of Whitehorse, Little Moreau Lake Quad., SW CORNER SW NE SW sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24080

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, in grass roots, concretion 8, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., CENTER E NW NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24081

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.11.

HYPOTYPE YPM 24082

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.10.

HYPOTYPE YPM 24083

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.1.

HYPOTYPE YPM 24084

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Gervillia-Oxytoma* concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24085

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.5.

HYPOTYPE YPM 24086

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G., Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24087

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.15, f.1,2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, layered-patchy concretion, outcrops, slumped in part, at toe of spur, S side of Grand River, and 8 mi SE of Little Eagle, Little Eagle SE Quad., E NW SW sec11T19NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24088

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.14, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretion, steep slopes on both sides of tributary gully, 0-0.3 mi S of the Grand River, and 4 mi NNE of Miscol, Miscol Quad., W NW NE sec2T20NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24089

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.15, f.3.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail

City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, in grass roots, concretion 10, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., CENTER E NW NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24090

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.82, pl.13, f.13, pl.15, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion, butte-like toe of SE-trending spur and adjoining outcrops and float areas, "Happy Hill," SE of Bench Mark Church, and about 6 mi WSW of Little Eagle, Little Eagle NW Quad., SW sec26T20NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 35437[c]

Waage, K.M. 1968. Bull. Peabody Mus. Nat. Hist. n.27, pl.2, f.B

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. *Oxytoma nebrascensis* type concretion, SW side of SE-trending spur paralleling and just W of SD Rt. 63, and between 0.3 and 0.5 mi S of Peabody Locality C0030, and 2.6 mi SSE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 3.6 mi NNE of Green Grass, Parade NW Quad., S SW SE NW sec32T15NR24E, N NW SW sec32T15NR24E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., 1959.

[a]The explanation for pl.14, f.8, should state A297, loc. 25 instead of A279, loc. 110.

[b]The explanation for pl.15, f.3, should state loc. 191 instead of loc. 64.

[c]This specimen lot is represented by approx. 50 individuals.

***Palaeanatina sinuata* Hall**

HOLOTYPE YPM 26252

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.491, pl.96, f.4.

Late Devonian, Chemung Grp, Chemung Fm. Warren, Warren Co., Pennsylvania, USA.

***Palaeoneilo angusta* Hall**

HYPOTYPE YPM 21324

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.2, f.13.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21325

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.2, f.14.

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.4.

HYPOTYPE YPM 21326

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.2, f.15.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21327

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21, pl.2, f.16.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 62254

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.21.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

***Palaeoneilo bisulcata* Hall and Whitfield**

HYPOTYPE YPM 21317

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.19, pl.2, f.3.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 21318

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.19, pl.2, f.4.

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

Hypotype YPM 21319

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.19, pl.2, f.5.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

Hypotype YPM 21320

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.19, pl.2, f.6.

Hypotype YPM 21321

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.19, pl.2, f.7.

Hypotype YPM 21322

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.19, pl.2, f.8.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

Hypotype YPM 21323

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.19, pl.2, f.9,10.

Hypotype YPM 62268

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.19.
Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

***Palaeoneilo constricta* (Conrad)**

Hypotype YPM 21301

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.1.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

Hypotype YPM 21302

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.2.

Late Devonian, Chemungian. Middle middle Chemung, quarry at base of Ingraham Hill, 1.3 mi SW of Binghamton City limits on W side of improved road (Penn. Ave.), follows valley of Bayless Creek, Broome Co., New York, USA. Collector: McAlester, A.L., 7/7/1957.

Hypotype YPM 21303

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.3.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

Hypotype YPM 21304

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17,18, pl.1, f.4,9,10.

McAlester, A.L. 1962. J. Paleont. v.36, n.1, p.70, pl.16, f.5.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 21305

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.5.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between parking area and W limit of fresh talus, and between 0.6 and 0.8 mi W of Chemung-Tioga county line, and about 2 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

Hypotype YPM 21306

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.6.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 21307

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.7.

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

Hypotype YPM 21308

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.8.

Late Devonian, Chemungian. Upper lower Chemung, roadcut on both sides of new road (not shown in 1942 edition) between Broome County Airport and village of West Chenango, 0.7 mi SW of West Chenango, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

Hypotype YPM 21309

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.18, pl.1, f.11.

Hypotype YPM 21310

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.18, pl.1, f.12.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 21311

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.18, pl.1, f.13.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

Hypotype YPM 21312

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.14.

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

Hypotype YPM 21313

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.15.

Late Devonian, Chemungian. Lower lower Chemung, roadcut along SW side of paved road along valley of Crocker Creek, approx. 2.5 mi NW of Union Center, just S of Crocker Creek Bridge, Broome Co., New York, USA. Collector: McAlester, A.L., 7/8/1957.

Hypotype YPM 21314

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.16.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

Hypotype YPM 21315

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.17, pl.1, f.17.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 21316

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.172, pl.1, f.18.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

Hypotype YPM 22626

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.121, f.1-3, pl.122, figs. 4-6.

Late Devonian, Snyder Creek Shale. Cliff exposures along the N bank of Cow Creek, NE NE sec27T47NR8W, NW NW sec26T47NR8W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

Hypotype YPM 22627

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.121, f.11,12.

HYPOTYPE YPM 22628

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.121, f.13,18.

HYPOTYPE YPM 22629

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.121, f.14,15.

HYPOTYPE YPM 22630

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.121, f.16,17.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22631[a]

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989.

Late Devonian, Snyder Creek Shale. Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22632

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.122, f.13.

HYPOTYPE YPM 22633

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.122, f.15.

HYPOTYPE YPM 22634

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.122, f.16.

HYPOTYPE YPM 22635

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.989, tbl.1,2, pl.122, f.17.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 62290

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.172.

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 62291

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.172.

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

[a]This specimen lot is represented by 2 individuals.

***Palaeoneilo elongata* Hall**

HYPOTYPE YPM 6826

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.345, pl.93, f.11a.

Late Devonian, Chemung Grp, Chemung Fm. Shale [of Chemung Grp] at Warren. Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Palaeoneilo emarginata* (Conrad)**

HYPOTYPE YPM 16427

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.67, pl.7, f.4.

HYPOTYPE YPM 16428

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.67, pl.7, f.6.

Middle Devonian, Traverse Grp, Petoskey Limestone. Upper Petoskey, 1 mi N of Norwood, on shore of Lake Michigan, Charlevoix Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

HYPOTYPE YPM 16429

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.67, pl.7, f.5.

Middle Devonian, Traverse Grp, Potter Farm Fm. Potter Farm, SE1/4sec20, and Alpena Cemetery pits, NW1/4SW1/4sec21T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Palaeoneilo filosa* (Conrad)**

HYPOTYPE YPM 38452–38456

Carter, J.G., D.R. Lawrence and H. Sanders. 1990. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.315.[a]

Middle Devonian, Hamilton Grp. "Peterboro North" locality, E side of Swamp Road, 0.6 mi S of Bliss Corners, and 2.7 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with the Invertebrate Zoology catalog numbers YPM 10056 and 10228.

***Palaeoneilo lineata* Goldfuss**

HYPOTYPE YPM 26803, 26804

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.1.

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Middle Triassic, Ladinian. St. Cassian, South Tyrol, Austria. Collector: Kittl, E.A.

***Palaeoneilo*? sp.**

HYPOTYPE YPM 25947

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.114, pl.20, f.9.

HYPOTYPE YPM 25948

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.114, pl.20, f.10.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 7.0 mi SE of Kyles Ford, along TN Rt. 70 through Clinch Mountain, Hawkins Co., Tennessee, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25949

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.114, pl.20, f.11.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 12.5 mi N of Marion, along VA Primary Rt. 16, Walker Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

***Paleyoldia glabra* (Beede and Rogers)**

HYPOTYPE YPM 24325

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.42, pl.33, f.4.

HYPOTYPE YPM 24326

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.42, pl.33, f.9.

HYPOTYPE YPM 24327

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.42, pl.33, f.8.

HYPOTYPE YPM 24328

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.42, pl.33, f.3,6.

HYPOTYPE YPM 24329

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.42, pl.33, f.2,5,13.

HYPOTYPE YPM 24330

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.42, pl.33, f.7,10.

HYPOTYPE YPM 24331

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.42, pl.33, f.11.

Late Pennsylvanian, Cisco Grp, Graham Fm, Jacksboro Limestone Mbr. Middle of Jacksboro, mainly from lower 10 ft, 3.5 mi SE of Jacksboro Railroad Station, Jack Co., Texas, USA. Collector: Schuchert, C., 1922.

***Panopea occidentalis* Meek and Hayden**

HYPOTYPE YPM 24397

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.28, f.14 (upper rt.).[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Tancredia* shell-bed, oriented block with valves oriented mainly concave down, section 2, E- and SSE-facing bluffs, W side of White Shirt Creek at its confluence with Grand River, Black Horse NE Quad., SE SE NW sec34T21NR23E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24469

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.137, pl.35, f.1-3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Tancredia* shell bed, unit 5 of section 2, roadcut on SE side of road to Bullhead, and 2.2 mi E of SD Rt. 65 , and 0.1 mi W of White Shirt Creek, and 11.3 mi W of Bullhead, McIntosh SE Quad., NE SW NW sec21T21NR23E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1959 to 1962.

[a]On pl.28, f.14, *Panopea occidentalis* is YPM 24397 (labeled A1349 in upper right of photo).

***Panopea* sp. ind.**

HYPOTYPE YPM 559

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.200.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H.

and Larkin, E.P., 1867.

***Paracyclas erecta* Hall**

HOLOTYPE YPM 6897

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.445, pl.95, f.22.

Late Devonian, Chemung Grp, Chemung Fm. In the upper members [of the Chemung Grp] at Warren. Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Paracyclas rowleyi* (Branson)**

HYPOTYPE YPM 22685

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.994, tbl.1,2, pl.126, f.1,2.

Late Devonian, Snyder Creek Shale. Uppermost soft layers of shale, *Spirifer eurytines* horizon, near Fulton, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22686

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.994, tbl.1,2, pl.126, f.3,4.

Late Devonian, Snyder Creek Shale. Cliff exposures along the SW bank of Cow Creek, NW NW sec25T47NR9W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22687

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.994, tbl.1,2, pl.126, f.5,6.

HYPOTYPE YPM 22688

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.994, tbl.1,2, pl.126, f.7,8.

Late Devonian, Snyder Creek Shale. Uppermost soft layers of shale, *Spirifer eurytines* horizon, near Fulton, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22689

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.994, tbl.1,2, pl.126, f.28.

Late Devonian, Snyder Creek Shale. Top of Bellama Springs Hill on Portland Road, 5 mi SE of Fulton, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22690

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.994, tbl.1,2, pl.127, f.7,8.

Late Devonian, Snyder Creek Shale. About 5-10 ft above creek, cliff exposures along the E bank of Cow Creek just SE of its junction with Auxvasse Creek, SE SE sec22T47NR8W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 22693

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.994, tbl.1,2, pl.127, f.9.

Late Devonian, Snyder Creek Shale. Cliff exposures along the N bank of Cow Creek, NE NE sec27T47NR8W, NW NW sec26T47NR8W, Callaway Co., Missouri, USA. Collector: Greger, D.K.

***Paracyclas*? sp. A**

HYPOTYPE YPM 22746

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.996, tbl.1,2, f.13.

HYPOTYPE YPM 22747

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.996, tbl.1,2, pl.127, f.14,15.

Late Devonian, Snyder Creek Shale. Callaway Co., Missouri, USA. Collector: Greger, D.K.

***Paracyclas*? sp. B**

HYPOTYPE YPM 22748

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.997, tbl.1,2, pl.127, f.10,12.

Late Devonian, Snyder Creek Shale. Callaway Co., Missouri, USA. Collector: Greger, D.K.

HYPOTYPE YPM 25793

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.997.

Late Devonian, Snyder Creek Shale. Uppermost soft layers of shale, *Spirifer eurytines* horizon, near Fulton, Callaway Co., Missouri, USA. Collector: Greger, D.K.

***Paracyclas*? sp. C**

HYPOTYPE YPM 22750

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.997, tbl.1,2, pl.127, f.16,17.

Late Devonian, Snyder Creek Shale. Roadcut exposures N of road approx. 2 mi E of New Bloomfield, NE SE sec33T46NR10W, Callaway Co., Missouri, USA. Collector: Miller, R.

***Parallelodon* (*Cosmetodon*) *sulcatinus* (Evans and Shumard)**

HYPOTYPE YPM 23911

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, concretion 3, face on W side of SSE-trending ridge, 450 ft N of Peabody Locality C0242, and at SW corner of Long's Ridge, and 7.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER S NE SE sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23912

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.32, pl.8, f.9,10.

HYPOTYPE YPM 23913

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.11.

HYPOTYPE YPM 23914

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.9.

HYPOTYPE YPM 23915

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.4,25.

HYPOTYPE YPM 23916

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.2,23, pl.8, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float not far out of place, concretion, end and W side of toe of S-trending spur, and SW-facing exposure on small knob 0.1 mi ESE of tip of spur, 0.2 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 3.6 mi NNE of Green Grass, Parade NW Quad., CENTER E E SW sec32T15NR24E, CENTER N S S sec32T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23917

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion, irregularly shaped spur with narrow SE-trending tip down-faulted so that lower barren concretions cap it, 0.3 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 3.8 mi NNE of Green Grass, Parade NW Quad., NE SW SE sec32T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23918

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.21.

HYPOTYPE YPM 23919

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion 1, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NE NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23920

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.28.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Face on SW side of slump block 300 ft SSW of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE NW sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23921

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.5.

HYPOTYPE YPM 23922

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.3.

HYPOTYPE YPM 23923

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.24.

HYPOTYPE YPM 23924

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.27.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion 1, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NE NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23925

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.

n.33, p.57, tbl.3, f.6.

HYPOTYPE YPM 23926

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.22.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, northern (NW-facing cliff) of 2 separate exposures, NE side of Little Moreau River, and 2 mi SE of Little Moreau Lake dam, and 7 mi S of Timber Lake Village, Little Moreau Lake Quad., CENTER NW SW sec22T16NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23927

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.26.

HYPOTYPE YPM 23928

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.18.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, concretion 4a, face on SW side of S-trending ridge, 600 ft N of Peabody Locality C0233, Long's Ridge, and 6.6 mi W of Whitehorse, Little Moreau Lake Quad., SW NW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23929

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.35.

HYPOTYPE YPM 23930

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.14.

HYPOTYPE YPM 23931

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion 2, face on SW side and at S end of SSE-trending spur at E end of Long's Ridge, and 5.5 mi W of Whitehorse, Whitehorse Quad., CENTER SE NE sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23932

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.29.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Face on SW side of slump block 300 ft SSW of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE NW sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23933

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.34.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion, both sides of NW-SE-trending ridge and spurs, W of Timber Lake-Whitehorse Road, and 6.5-7 mi NW of Whitehorse, Whitehorse Quad., Little Moreau Lake Quad., NE CORNER sec25T16NR25E, SE CORNER NE sec25T16NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

HYPOTYPE YPM 23934

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.16, pl.8, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, concretion 2, several outcrops and small faces to SW of prairie trail, 900 ft N of Peabody Locality C0234, Long's Ridge, and 6.7 mi W of Whitehorse, Little Moreau Lake Quad., CENTER S NW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23935

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.12.

HYPOTYPE YPM 23936

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.26.

HYPOTYPE YPM 23937

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.30.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, concretion 1, several outcrops and small faces to SW of prairie trail, 900 ft N of Peabody Locality C0234, Long's Ridge, and 6.7 mi W of Whitehorse, Little Moreau Lake Quad., CENTER S NW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23938

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.33.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, exposures at S end of SE-trending ridge, just SE of benchmark 1937, and 3.7 mi ENE of Little Eagle, Wakpala NW Quad., about center CENTER W SE SE sec13T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23939

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.31.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, face on W side of SSE-trending spur, 600 ft NNW of Peabody Locality C0236, and 1.2 mi W of E end of Long's Ridge, Long's Ridge, and 6.1 mi W of Whitehorse, Little Moreau Lake Quad., SW CORNER SW NE SW sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23940

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.13.

HYPOTYPE YPM 23941

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.17, pl.8, f.4,6,8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, concretion 1, face and outcrops at 2 separate sites around S end of SSE-trending ridge at SW corner of Long's Ridge, and 7.3 mi W of Whitehorse, Little Moreau Lake Quad., SE NW SW SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23942

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.19.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, concretion 1, in gully 6 ft below *Limopsis* layer, prominent isolated knob to SW of main ridge, on W side of prairie trail, with several outcrops on W flanks, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23943

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, tbl.3, f.20.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, concretion 4c, patch at SE end, face on SW side of S-trending ridge, 600 ft N of Peabody Locality C0233, Long's Ridge, and 6.6 mi W of Whitehorse, Little Moreau Lake Quad., SW NW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24020

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, pl.8, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion, slumped outcrops around W end of spur 0.4 mi SW of Long's Ridge prairie trail, and about 0.25 mi NNW of Peabody Locality C0246, Long's Ridge, and 7.1 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NW NW sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24021

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57.

HYPOTYPE YPM 24022

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, pl.7, f.11-13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion 2, face on SW side of S-trending spur, 2.25 mi W of E end of Long's Ridge, Long's Ridge, and 6.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER E SW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24023

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, pl.8, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion, both sides of NW-SE-trending ridge and spurs, W of Timber Lake-Whitehorse Road, and 6.5-7 mi NW of Whitehorse, Whitehorse Quad., Little Moreau Lake Quad., NE CORNER sec25T16NR25E, SE CORNER NE sec25T16NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

HYPOTYPE YPM 24024

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, pl.7, f.10.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion 1, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NE NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24025

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, pl.8, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion 2, small bare faces, small exposures on sides of a tributary of Whitehorse Creek, 0.1 mi S of stock dam, and 0.5 mi due S of Thil Ranch house, and 4.8 mi S of Glencross, Glencross Quad., CENTER N NW SW sec2T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24026

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, pl.7, f.7,8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion, both sides of NW-SE-trending ridge and spurs, W of Timber Lake-Whitehorse Road, and 6.5-7 mi NW of Whitehorse, Whitehorse Quad., Little Moreau Lake Quad., NE CORNER sec25T16NR25E, SE CORNER NE sec25T16NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962 to 1963.

HYPOTYPE YPM 24027

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.57, pl.7, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float not far out of place, concretion, end and W side of toe of S-trending spur, and SW-facing exposure on small knob 0.1 mi ESE of tip of spur, 0.2 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 3.6 mi NNE of Green Grass, Parade NW Quad., CENTER E E SW sec32T15NR24E, CENTER N S S sec32T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.7, f.10, should state loc. 191, not loc. 64.

***Parapholos* sp. A**

HYPOTYPE YPM 24492

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.146, pl.37, f.7,8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER sec3T14NR20E, E sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

***Pararca erecta* (Hall)**

HYPOTYPE YPM 6821A

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.432, pl.94, f.20.

HYPOTYPE YPM 6821B

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.432, pl.94, f.21.

Early Mississippian, Waverly Grp. Sandstone of the Waverly Grp at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E.

***Pararca venusta* Hall**

SYNTYPE YPM 6822

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.431, pl.94, f.22.

Late Devonian, Chemung Grp, Chemung Fm. In the upper beds [of the Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Parreysia deterrai* Vokes**

HOLOTYPE YPM 15048

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.139, pl.10, f.2,3.

PARATYPE YPM 15049

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.139, pl.10, f.4.

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. Upper Siwalik Series, S of Tatrot Village, Survey of India 43:H/5: quadrant A2, Jhelum District, Punjab, India. Collector: de Terra, H., 1932.

***Parreysia* sp.**

HYPOTYPE YPM 62852[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.47.

Tertiary, Pliocene, lower Siwalik Series. Near Chinji, Salt Range, India.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Parreysia tatrotensis* Vokes**

HOLOTYPE YPM 15036

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.46, pl.3, f.1.2.

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, pl.10, f.11.

PARATYPE YPM 15037

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.46, pl.3, f.9,11.

PARATYPE YPM 62848[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.46.

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. Quarry 101, just above sandstone ledge in 25-30 ft thick brown siltstone, basal upper Siwalik Series, 300 ft E of Hasnot-Tatrot trail, and 0.75 mi SSW of Tatrot Village, Survey of India 43:H/5: quadrant B2, Jhelum District, Punjab, India. Collector: Lewis, G.E., 12/8/1932.

HYPOTYPE YPM 15050

Vokes, H.E. 1936. Quart. J. Geol. Min. Met. Soc. India, v.8, n.4, p.140, pl.10, f.10.

Tertiary, Pliocene, Siwalik Series, Chinji Zone. Lower Siwalik Series, Ramnagar Village, and 27 mi ENE of Jammu Village, Survey of India 43: quadrant D4, Jammu District, Kashmir, India. Collector: de Terra, H., 1932.

HYPOTYPE YPM 35259

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.46, tf.2.

HYPOTYPE YPM 62847[a]
Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.46, tf.2.[b]

HYPOTYPE YPM 62849[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.46.

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. Quarry 101, just above sandstone ledge in 25-30 ft thick brown siltstone, basal upper Siwalik Series, 300 ft E of Hasnot-Tatrot trail, and 0.75 mi SSW of Tatrot Village, Survey of India 43:H/5: quadrant B2, Jhelum District, Punjab, India. Collector: Lewis, G.E., 12/8/1932.

HYPOTYPE YPM 62850[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.46.

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. 25-30 ft thick brown siltstone, basal upper Siwalik Series, 450 ft W of Hasnot-Tatrot trail, and 0.4 mi SW of Tatrot Village, Survey of India 43:H/5: quadrant B2, Jhelum District, Punjab, India. Collector: Lewis, G.E., 12/8/1932.

HYPOTYPE YPM 62851[a]

Vokes, H.E. 1935. Mem. Conn. Acad. Arts Sci. v.9, art.4, p.46.

Tertiary, Pliocene, Siwalik Series, Tatrot Zone. Salt Range, India.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

[b]The image is reversed in tf.2.

***Pecten* (*Camptonectes*) *microcancelli* Stephenson**

HOLOTYPE YPM 14817

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.391, pl.3, f.21,22.

PARATYPE YPM 14818[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.391.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 2 individuals, although Stephenson (1936) cites 3.

***Pecten* (*Chlamys*) *islandicus* Müller**

HYPOTYPE YPM 25675
Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.22, tf.1a,1b,11,12.

Quaternary, Holocene. No locality information available. Collector: Braun, F.A.

***Pecten* (*Plagioctenium*) *woodringi* Spieker**
See *Pecten* sp. ind.

***Pecten* sp. ind.**

HYPOTYPE YPM 572, 573

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

=*Pecten woodringi* Spieker. SYNTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.125.

=*Pecten* (*Plagioctenium*) *woodringi* Spieker. PARALECTOTYPE. Olsson, A.A. 1932. Bull. Am. Paleont. v.19, n.68, p.81.

HYPOTYPE YPM 31751

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

=*Pecten woodringi* Spieker. SYNTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.125, pl.7, f.5.

=*Pecten* (*Plagioctenium*) *woodringi* Spieker. PARALECTOTYPE. Olsson, A.A. 1932. Bull. Am. Paleont. v.19, n.68, p.81, pl.5, f.5.

HYPOTYPE YPM 31752

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

=*Pecten woodringi* Spieker. SYNTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.125, pl.7, f.4.

=*Pecten* (*Plagioctenium*) *woodringi* Spieker. LECTOTYPE. Olsson, A.A. 1932. Bull. Am. Paleont. v.19, n.68, p.81, pl.5, f.2.

Tertiary, Miocene, Zorritos Fm, Upper Zorritos Mbr. Small block of down-faulted beds exposed near the mouth of Quebrada Tusillal just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Pecten woodringi* Spieker**

See *Pecten* sp. ind.

***Pelecypod* sp. A**

HYPOTYPE YPM 13345[a]

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.204, pl.19, f.7,8.

Middle Silurian, Niagaran, Gascons Fm. Shore, center of Anse-aux-Gascons, Quebec, Canada. Collector: Northrop, S.A., 1927.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Pelecypod* sp. B**

HYPOTYPE YPM 13334

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.205, pl.20, f.9.

Middle Silurian, Niagaran, Gascons Fm. Dark green shale at mouth of Chourinard Brook E of Gascons, Quebec, Canada. Collector: Schuchert, C., 8/1923.

***Periploma subgracile* (Whitfield)**

HYPOTYPE YPM 24154

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.38, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Parts of several concretions, spur 600 ft NW of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER NE SE NW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24155

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.38, f.8.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, lower Trail City Mbr, Little Eagle Lithofacies. Float, concretion 1, outcrops around S end of 2nd spur to E of ridge with Peabody Localities C0242–C0244, about 0.33 mi NE of Peabody Locality C0242, S side of Long's Ridge, and 7.1 mi W of Whitehorse, Little Moreau Lake Quad., SW SW NE SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24156

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.139, pl.38, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Scattered specimens at top of cliff, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 mi SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.38, f.8, should state Lower Trail City instead of Lower *nicolleti* AZ.

***Pernopecten attenuatus* (Herrick)**

HYPOTYPE YPM 14493

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.113, pl.20, f.4.

Desmoinesian, Carbondale Fm, Danville Coal Mbr. Roof of Danville Coal, Danville, Vermilion Co., Illinois, USA. Collector: Cockerton, F.T.

***Pernopecten clypeatus* Newell**

PARATYPE YPM 14436

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.112, pl.20, f.8a,8b.

Late Pennsylvanian, Howard Limestone. 2 mi N of Thurman, Fremont Co., Iowa, USA.

PARATYPE YPM 14485A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.112.

PARATYPE YPM 14485B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.112, pl.1, f.15.

PARATYPE YPM 14485C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.112, pl.1., f.14.

PARATYPE YPM 14485D, 14485[a]

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.112.

Late Pennsylvanian, Wakarusa Limestone?. S of fault at Thurman, Fremont Co., Iowa, USA. Collector: Condra, G.E. and others.

PARATYPE YPM 14486[a]

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.112.

Late Pennsylvanian, Howard Limestone. Zone c, 2 mi N of Thurman, McPaul Quad., Fremont Co., Iowa, USA.

[a]This specimen lot is represented by 6 individuals.

***Pernopecten ohioensis* Newell**

CAST OF PARATYPE YPM 25680

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.112, pl.20, f.1.[a]

Middle Pennsylvanian, Liverpool Fm. SW 1/4, 15, Knox Twp., Knox Co., Illinois, USA.

[a]The figured specimen, YPM 25680, is a cast. The original specimen is reposited at the Illinois Geological Survey.

***Pernopecten prosseri* (Mark)**

PARATYPE YPM 25678

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.111, pl.20, f.12.[a]

Late Pennsylvanian, Conemaugh Fm, Ames Limestone Mbr. New Concord, Muskingum Co., Ohio, USA.

[a]The figured specimen, YPM 25678, is a cast. The original specimen is Ohio Univ. 14236-2.

***Pernopecten symmetricus* Newell**

HOLOTYPE YPM 16328

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.294, pl.2, f.9.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Base of Dozier on summit of Mt. Nebo on N side of highway, 3 mi W of Estelline (Hall Co.), Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Phelopteria dalli* (Stephenson)**
See *Pteria*? *dalli* Stephenson.

***Phelopteria linguaeformis* (Evans and Shumard)**

HYPOTYPE YPM 24056

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Concretion from road level in grass roots, crest of spur and local knobs along trail leading SE of Trail City and roughly paralleling railroad tracks, and 2-3 mi SE of Trail City, Trail City Quad., W sec9T17NR28E, NW NE sec16T17NR28E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24057

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Oriented concretion, uppermost CAZ, exposures on NW-facing bluff and spurs below it, overlooking Moreau River, and 1.5-2 mi SW of Green Grass, Lantry NE Quad., E NE sec27T14NR23E, NW CORNER sec26T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24058

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.12, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Includes CAZ and *Sphenodiscus* layer, all collections from float and in sand banks of roadcut of abandoned US Rt. 12, railroad cut and spillway of Lantry Dam, 1.5 mi WNW of Lantry, Lantry Quad., CENTER SW SW sec4T12NR22E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1940 to 1962.

HYPOTYPE YPM 24059

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.3.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. 1.5 ft above barren layer in POAZ, SW side of SE-trending spur paralleling and just W of SD Rt. 63, and between 0.3 and 0.5 mi S of Peabody Locality C0030, and 2.6 mi SSE SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 3.6 mi NNE of Green Grass, Parade NW Quad., S SW SE NW sec32T15NR24E, N NW SW sec32T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

Hypotype YPM 24060

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float and in place, from *Sphenodiscus* layer up through CAZ, roadcut and adjacent outcrops along W side of SD Rt. 63, from High Elk Hill to point 0.5 mi N, and between 5.5 and 6 mi S of intersection with US Rt. 212, High Elk Hill, 6 mi SSW of Eagle Butte Village, High Elk Hill Quad., W W SW sec12T11NR23E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1940 to 1941.

Hypotype YPM 24061

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.12, f.9.[b]

Hypotype YPM 24062

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.12, f.6.[c]

Hypotype YPM 24063

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Concretion, lower Timber Lake, 3.4 ft above RB concretion layer, S section, cut on S side of stock dam, 3.3 mi SW of Ridgeview, Ridgeview Quad., SE CORNER SW SW sec29T13NR27E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

Hypotype YPM 24064

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.12, f.7,8.

Hypotype YPM 24065

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Several concretions, ridgetop layer in road bed, crest of spur and local knobs along trail leading SE of Trail City and roughly paralleling railroad tracks, and 2-3 mi SE of Trail City, Trail City Quad., W sec9T17NR28E, NW NE sec16T17NR28E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., 1957.

Hypotype YPM 24066

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.4.[d]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float, concretion derived from uniform bored zone, NE-facing bluff on SW side of Grand River, Jung Ranch, and 1 mi S of Black Horse, Black Horse Quad., CENTER NW sec14T20NR22E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

Hypotype YPM 24067

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.12, f.10.[e]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretions, 9-ft zone from top of unit 2 to top of unit 3 of section, bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER SW NE sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961.

Hypotype YPM 24068

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.10.

Hypotype YPM 24069

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.11.

Hypotype YPM 24070

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.12.

Hypotype YPM 24071

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.1, pl.12, f.5.

Hypotype YPM 24072

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.9.

Hypotype YPM 24073

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.13, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G., Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24074

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.71, pl.12, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Concretion from road level, crest of spur and local knobs along trail leading SE of Trail City and roughly paralleling railroad tracks, and 2-3 mi SE of Trail City, Trail City Quad., W sec9T17NR28E, NW NE sec16T17NR28E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.13, f.3, should state loc. 198, *Protocardia-Oxytoma* AZ instead of loc. 30, *Cucullaea* AZ.

[b]The explanation for pl.12, f.9, should state Timber Lake Mbr instead of ICl of Trail City Mbr.

[c]The explanation for pl.12, f.6, should state Timber Lake Mbr instead of ICl of Trail City Mbr.

[d]The explanation for pl.13, f.4, should state A1206, loc. 132, instead of A1026, loc.139.

[e]The explanation for pl.12, f.10, should state 24067A instead of 24607A.

***Phestia* cf. *P. brevirostris* (Hall and Whitfield)**

HYPOTYPE YPM 16430

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.65, pl.6, f.3,4.

Middle Devonian, Traverse Grp, Potter Farm Fm. About 0.6 mi S of Four Mile Dam on both sides of road, center of sec18T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

***Phestia inflatiformis* (Chernyshev)**

CAST OF LECTOTYPE YPM 24282

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.43, pl.34, f.3,4.[a]

CAST OF PARALECTOTYPE YPM 24283

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.43, pl.34, f.5,6.[a]

Carboniferous. Volchya River near the village of Olgin Kut, Don Basin, Ukraine. Collector: McAlester, A.L.

[a]The figured specimen is a plaster cast of an unnumbered specimen in the Geological Institute of the Academy of Sciences of the Ukrainian S.S.R., Kiev, Ukraine.

***Pholadella newberryi* Hall and Whitfield**

HYPOTYPE YPM 82

Runnegar, B. 1974. J. Paleont. v.48, n.5, pl.2, f.4,5.

Mississippian, Waverly Grp. Rushville, Sheridan Co., Ohio, USA.

***Pholadomya deweyensis* Speden**

HOLOTYPE YPM 24152

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151, pl.38, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion, bulldozed cuts on N and S sides of Strong's stock dam, 0.5 mi ESE of Paul Strong Ranch house, S of Moreau River, and 5.5 mi N of Parade, Parade Quad., NW CORNER NW SW sec8T13NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

PARATYPE YPM 24151

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151, pl.38, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, 5.4 ft below lowest *Gervillia* concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24153

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151, pl.38, f.11.

PARATYPE YPM 24679

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 14, *Gervillia* association at top of LNAZ, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE

NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24680

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion 1, face and outcrops at 2 separate sites around S end of SSE-trending ridge at SW corner of Long's Ridge, and 7.3 mi W of Whitehorse, Little Moreau Lake Quad., SW NE SE SE sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24681

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, 5.4 ft below lowest *Gervillia* concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24682

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24683

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, SE side of spur, exposures on small E-trending spur, 1 mi S of Maxon Ranch house, and 2.5 mi NW of Little Eagle, Little Eagle Quad., NE CORNER NW sec18T20NR27E, NW CORNER NE sec18T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24684

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, face on W side of SSE-trending ridge, 450 ft N of Peabody Locality C0242, and at SW corner of Long's Ridge, and 7.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER S NE SE sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24685

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone?. In slump below road level, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24686

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone?. Float, concretion, exposures on hill slope immediately E of E abutment of stock dam, about 0.5 mi N of Johnson Brothers Ranch house, and 6 mi S of Little Eagle, Little Eagle SE Quad., NW CORNER NE NW sec29T19NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M.

PARATYPE YPM 24687

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Lucina(C) concretion layer, SW side of SE-trending spur paralleling and just W of SD Rt. 63, and between 0.3 and 0.5 mi S of Peabody Locality C0030, and 2.6 mi SSE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 3.6 mi NNE of Green Grass, Parade NW Quad., S SW SE NW sec32T15NR24E, N NW SW sec32T15NR24E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., 1959.

PARATYPE YPM 24689

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Fox Hills Fm in type area, Dewey Co., Corson Co., and N half of Ziebach Co., South Dakota, USA.

PARATYPE YPM 24690, 24691

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float and in place, from *Sphenodiscus* layer up through CAZ, roadcut and adjacent outcrops along W side of SD Rt. 63, from High Elk Hill to point 0.5 mi N, and between 5.5 and 6 mi S of intersection with US Rt. 212, High Elk Hill, 6 mi SSW of Eagle Butte Village, High Elk Hill Quad., W W SW sec12T11NR23E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1940 to 1941.

PARATYPE YPM 24692

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, butte-like toe of SE-trending spur and adjoining outcrops and float areas, "Happy Hill," SE of Bench Mark Church, and about 6 mi WSW of Little Eagle, Little Eagle NW Quad., SW sec26T20NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

PARATYPE YPM 24693–24695

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.151.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

***Pholas* sp. ind.**

HYPOTYPE YPM 557

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.200.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Phthonia nitida* Hall**

SYNTYPE YPM 26248

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.477, pl.94, f.5.

SYNTYPE YPM 26249

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.477, pl.94, f.6.

Late Devonian, Chemung Grp, Chemung Fm. In a shale [of Chemung Grp], near the level of the Alleghany River, at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Pinctada savignyi* (Monterosato)**

HYPOTYPE YPM 25676

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, tf.8,9.

Holocene. Mediterranean, Beirut, Lebanon. Collector: Coe, W.R., 1902.

***Pinna ludlovi* Whitfield**

HOLOTYPE YPM 6837

Whitfield, R.P. 1876. U.S. War Dept. p.143, pl.1, f.6,7.

Whitfield, R.P. 1899. Ann. New York Acad. Sci. v.12, n.8, p.163.[a]

=*Sulcatopinna ludlovi*. Easton, W.H. 1962. U.S. Geol. Surv. Prof. Pap. n.348, p.94, pl.13, f.6.

Pennsylvanian. Very thick-bedded limestone "immediately following" Cretaceous rocks, Musselshell Canyon, a short distance [about 9 mi WNW] from the forks of the Musselshell River, [sec14T09NR10E], Meagher Co., Montana, USA. Collector: Dana, E.S. and Grinnell, G.B., 7/28/1875.

[a]At time of publication, specimen was reposited at the U.S. National Museum; it has since been acquired by the Yale Peabody Museum.

***Pisidium abditum* Haldeman**

HYPOTYPE YPM 12821

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.242.

HYPOTYPE YPM 12821A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.242, pl.4, f.4a.

HYPOTYPE YPM 12821B

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.242, pl.4, f.4b.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Cooper, G.A.

***Pisidium contortum* Prime**

Hypotype YPM 12822

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.243.

Hypotype YPM 12822A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.243, pl.4, f.13a.

Hypotype YPM 12822B

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.243, pl.4, f.13b.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Cooper, G.A.

***Pisidium ferrugineum* Prime**

Hypotype YPM 12820

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.243.

Hypotype YPM 12820A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.243, pl.4, f.7a.

Hypotype YPM 12820B

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.243, pl.4, f.7b.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Cooper, G.A.

***Pisidium rotundatum* Prime**

Hypotype YPM 12838, 12838A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244, pl.4, f.6.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Hunt, C.B.

***Pisidium ventricosum* Prime**

Hypotype YPM 12819

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244.

Hypotype YPM 12819A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244, pl.4, f.3a.

Hypotype YPM 12819B

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244, pl.4, f.3b.

Hypotype YPM 12819C

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244, pl.4, f.3c.

Hypotype YPM 12819D

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244, pl.4, f.3d.

Hypotype YPM 12819E

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244, pl.4, f.3e.

Hypotype YPM 12819F[a]

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244, pl.4, f.3f.

Hypotype YPM 12819G[a]

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.244, pl.4, f.3g.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Cooper, G.A.

[a] A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Plagioptychus tschoppi* Palmer**

Hypotype YPM 14893

Seilacher, A. 1998. Bivalves: an eon of evolution, p.430, tf.8A-C.

Late Cretaceous, Maastrichtian, Habana Fm. 7 km W of Ciego de Avila, Camaguey Province, Cuba. Collector: Palmer, R.H.

***Planorbella campanulata* Say**

Hypotype YPM 12831[a]

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1a-1g.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Hunt, C.B.

[a]This specimen lot is represented by 3 individuals.

***Planorbella companulata* (Say)**

HYPOTYPE YPM 12831A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1d.

HYPOTYPE YPM 12880

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248.

HYPOTYPE YPM 12880A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1a.

HYPOTYPE YPM 12880B

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1b.

HYPOTYPE YPM 12880C

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1c.

HYPOTYPE YPM 12880D

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1d.

HYPOTYPE YPM 12880E

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1e.

HYPOTYPE YPM 12880F

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1f.

HYPOTYPE YPM 12880G

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.248, pl.3, f.1g.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Hunt, C.B.

***Pleurodapis luriea* Saul**

HOLOTYPE YPM 22369

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1044, pl.136, f.3.

HYPOTYPE YPM 22368

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1044, pl.136, f.1,2.

HYPOTYPE YPM 22370

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1044, pl.136, f.4.[a]

HYPOTYPE YPM 26533–26537

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1044.

Devonian, Accraian Series. Clay shale unit, small quarry, W side of mouth of creek, 3750 ft W of Christianborg Castle, and just E of Accra Club golf course and "Area Beach," Accra, Ghana. Collector: Saul, J.M., 8/1959.

[a]The magnification of f.4 on pl.136 is about × 2, not × 1 as stated in the plate explanation.

***Pleuromya* sp.**

HYPOTYPE YPM 81

Runnegar, B. 1974. J. Paleont. v.48, n.5, tf.6-H.

Middle Jurassic. Inferior Oolite, Calvados, France.

***Pleurophorus albequus* Beede**

HYPOTYPE YPM 16339

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.298, pl.3, f.5.

HYPOTYPE YPM 16340

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.298, pl.3, f.6.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, S side section 78, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Pleurophorus albequus longus* Beede**

HYPOTYPE YPM 16341

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.300, pl.3, f.19.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, S side, section 78, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Polidevcia karagandensis* (Chernyshev)**

CAST OF HOLOTYPE YPM 24281

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.44, pl.34, f.1,2.[a]

Lower Carboniferous, Ashlyarik Series. Pit No. 4A (sheet

M-43-76-B), Verkhyne-Sokurskii district, Kazakhstan.

[a]Figured specimen is a plaster cast; the original is No.1446/22 in the collections of the Geological Institute of the Academy of Sciences of the Ukrainian S.S.R., Kiev, Ukraine.

***Praecardium potens* (Hall)**

HYPOTYPE YPM 38434

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.321.[a]

Middle Devonian, Hamilton Grp. N of Morrisville, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with Invertebrate Zoology catalog number YPM 10230.

***Praenucula expansa* Pfab**

CAST OF PARALECTOTYPE YPM 24276

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.46, pl.8, f.6,7.[a]

Middle Ordovician, Etage d-4. Lodenitz, Czech Republic.

[a]Figured specimen is a latex cast; the original is reposited at the Národní Museum, Prague, Czech Republic.

***Praenucula levata* (Hall)**

HYPOTYPE YPM 25943

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.114, pl.20, f.5.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 0.5 mi N of Bastress, along PA Rt. 654, Lycoming Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

HYPOTYPE YPM 25944

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.114, pl.20, f.6.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, occasional shale pebble conglomerate, roadcut 1.5 mi S of Rainesburg, along unpaved PA Rt. 326, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25945

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.114, pl.20, f.7.

Late Ordovician, Reedsville Fm. Shale and muddy siltstone, thin beds of organically stained ferruginous sandstone, roadcut less than 3.0 mi N of Elberta, along Elberta-Culp road [roadcut a few hundred yards S of loc. 77], Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25946

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.114, pl.20, f.8.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut 0.5 mi N of Bastress, along PA Rt. 654, Lycoming Co., Pennsylvania, USA. Collector: Bretsky, P.W., 5/1966.

***Promytilus annosus senex* Newell**

PARATYPE YPM 31842[a]

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.39.

Late Pennsylvanian, Missourian, Kansas City Grp. Kansas or Missouri, USA.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Promytilus priscus* Newell**

PARATYPE? YPM 31894–31900

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.40.[a]

Late Pennsylvanian, Lecompton Fm, Doniphan Shale Mbr. Lower limestone, Snyderville Quarry, 3 to 4 mi W of Nehawka, Cass Co., Nebraska, USA.

[a]Labeled as paratype by N.D. Newell, but neither figured nor mentioned specifically in the publication.

***Prorhynchus angulatum* Hall**

HOLOTYPE YPM 26251

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.493, pl.96, f.7.

Late Devonian, Chemung Grp, Chemung Fm. In the Upper Chemung Grp at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Prorhynchus nasutum* Hall**

HOLOTYPE YPM 26250

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.493, pl.96, f.6.

Late Devonian, Chemung Grp, Chemung Fm. In the upper beds [of the Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Prothyris exuta* Hall**

SYNTYPE YPM 6804

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.462, pl.94, f.9.

Late Devonian, Chemung Grp, Chemung Fm. In the upper beds [of the Chemung Grp] at Warren, Warren

Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Protocardia biseriatum* Conrad**
See *Cardium biseriatum* Conrad.

***Protocardia* sp. A**

HYPOTYPE YPM 24181

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.120, pl.30, f.5, p.117.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 3, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24182

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.120, pl.30, f.6, p.117.[a b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, NW-trending spur on E side of road, Crawford Ranch, 5.5 mi SW of Little Eagle, Little Eagle SE Quad., 0.1 mi W of center, CENTER sec13T19NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 24183

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.120, pl.30, f.4, p.117.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, just above sand zone, faces 0.3 mi S of Peabody Locality C0120, and 1 mi SE of High Bank Creek, and 5.8 mi SW of Little Eagle, Little Eagle SW Quad., NE CORNER SE NE sec15T19NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

[a]The explanation for pl.30, f.4–6, should state, *Protocardia* sp. A instead of *Protocardia* sp.

[b]The explanation for pl.30, f.6, should state loc. A362 instead of loc. A372.

***Protocardia* sp.**

HYPOTYPE YPM 35511[a]

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, pl.41, f.1.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Float, concretion, small Pleistocene gravel pit, top of bluff on S bank of Oak Creek, and 1.4 mi WNW of Mahto, Mahto Quad., SW CORNER NE SW sec19T21NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

[a]This specimen lot is represented by approx. 100 individuals.

[b]Pl.41, f.1 illustrates a *Protocardia-Cymbophora* association.

***Protocardia subquadrata* Evans and Shumard**

HYPOTYPE YPM 24184

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.10.

HYPOTYPE YPM 24185

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.7.

HYPOTYPE YPM 24186

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.16.

HYPOTYPE YPM 24187

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.15.

HYPOTYPE YPM 24188

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.11.

HYPOTYPE YPM 24189

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.12,14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion, about 10 ft below bentonite of unit 4, unit 2 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24190

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. 300 ft SSE of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER SW SW NE sec26T15NR21E, Ziebach Co., South Dakota, USA.

Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24191

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.5,6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion, about 10 ft below bentonite of unit 4, unit 2 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24192

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.3.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Several concretions, old 56C#1 of 1959 notebook, base of section B, 600 ft N of St. Patrick Butte benchmark, of 1962 notebook, St. Patrick Butte, at edge of upland N of Moreau River, Dupree NE Quad., NE SW SE sec23T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1959 to 1962.

HYPOTYPE YPM 24193

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Parts of several concretions, spur 600 ft NW of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER NE SE NW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24194[b]

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.30, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Concretion, outcrops along crest of ridge, 0.6 mi E of tributary to Deep Bank Creek, and 6.5 mi N of Trail City, Wakpala SW Quad., CENTER N SE sec31T19NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24195

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.30, f.2.

HYPOTYPE YPM 24196[c]

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., CENTER E NW NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24197

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.30, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion, in bed of a prairie trail bulldozed down face, 0.5 mi SW of Lonesome Butte, and 5 mi E of Mahto, Kline Buttes Quad., CENTER E E SW sec19T21NR29E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24198

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.28, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, NW-trending spur on E side of road, Crawford Ranch, 5.5 mi SW of Little Eagle, Little Eagle SE Quad., 0.1 mi W of center, CENTER sec13T19NR26E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 24199

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, in grass roots, concretion 1, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., CENTER E NW NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24200

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.28, f.13, p.117.[d]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float, and from measured section, *Sphenodiscus* layer and CAZ, 2 separate places on SW-facing bluffs, on W side of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 4

mi NNE of Green Grass, Parade NW Quad., NE NE NE sec31T15NR24E, NW NW NW sec32T15NR24E, SE SE SE sec30T15NR24E, SW SW SW sec29T15NR24E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., 1957.

HYPOTYPE YPM 24376

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.9.

HYPOTYPE YPM 24377

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion a, 1 ft below top of unit 2 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24477

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretion, about 10 ft below bentonite of unit 4, unit 2 of section 1, exposures on both sides of SE-trending nose of high bluff at confluence of Thunder Butte Creek and Beaver Trap Creek, and 2 mi NW of Thunder Butte Village, Thunder Butte Quad., NW NW SE sec29T15NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24649

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.117, pl.29, f.1,4.[e]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Parts of several concretions, spur 600 ft NW of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER NE SE NW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 25709B

Cockerell, T.D.A. 1928. Am. J. Sci. v.215, tf.1E(lower left).

Late Cretaceous, Maastrichtian, Fox Hills Fm. Concretionary bed, "CAS" [the Ammonite Bed of Russell's unpublished manuscript], several feet thick in a series of arenaceous shale, about 110 ft above the Fox Hills base [or 190-200 ft below the base of the Lance], 10 miles SW of Dupree, NW T11NR20E, Ziebach Co., South Dakota, USA. Collector: Russell, W.L.

[a]The explanation for pl.29, f.3, should state *Cymbophora-Tellinimera* AZ instead of *Cucullaea* AZ.

[b]This is a concretion containing several hundred specimens.

[c]This specimen lot is represented by 80 individuals.

[d]The explanation for pl.28, f.13, should state from *Sphenodiscus* layer to *Cucullaea* AZ, instead of *Cucullaea* AZ.

[e]The explanation for pl.29, f.1,4, should state *Cymbophora-Tellinimera* AZ instead of *Cucullaea* AZ.

***Protodonax*? sp. indet.**

HYPOTYPE YPM 24473

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.131, pl.33, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Oyster bed capping Mud Butte, a small butte on E side of road, about 3 mi NE of Freeman Ranch, and 8 mi NNW of Red Scaffold, Bull Creek 2 NW Quad., Bessie Butte Quad., N SW SW sec25T11NR18E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1962.

***Pseudamusium*? sp.**

HYPOTYPE YPM 16329

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.295, pl.2, f.11.

HYPOTYPE YPM 16330

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.295, pl.2, f.12.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Base of Dozier on summit of Mt. Nebo on N side of highway, 3 mi W of Estelline (Hall Co.), Collingsworth Co., Texas, USA. Collector: Roth, R.I.

HYPOTYPE YPM 16331

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.295, pl.2, f.13.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, S side, section 78, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Pseudarca typa* Tromelin and Lebsconte**

CAST OF LECTOTYPE YPM 24277

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.47, pl.32, f.2,4.[a]

Ordovician. Horizon of Gres [sandstone] de May, La Bouxiere en Liffre, near Rennes, Brittany, France. Collector: McAlester, A.L.

[a]Figured specimen is a latex cast; the original is reposited at the Université de Paris.

***Pseudaviculopecten bradfordensis* McAlester**

HOLOTYPE YPM 21559

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.51, tbl.2, pl.20, f.14.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on S side of paved road connecting East Athens and Litchfield, 1.4 mi E of East Athens and 0.2 mi W of East Athens-Litchfield town line, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/22/1958.

HYPOTYPE YPM 21560

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.51, pl.20, f.15.[a]

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

[a]Not pl.25, f.12.

***Pseudaviculopecten exactus* (Hall)**

HYPOTYPE YPM 16464[a]

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.101.

Middle Devonian, Traverse Grp, Alpena Limestone. Bioherm facies (upper Alpena, Centerfield horizon), Four Mile Dam on Thunder Bay River, SW1/4SE1/4sec07T31NR08E, Alpena Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

[a]This specimen lot is represented by 3 individuals.

***Pseudaviculopecten exacutus* Beede**

HYPOTYPE YPM 14487A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.38, pl.2, f.1.

HYPOTYPE YPM 14487B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.38, pl.2, f.2.

HYPOTYPE YPM 14487C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.38, pl.2, f.3.

Middle Devonian, Hamilton Grp. Canandaigua Lake, New York, USA. Collector: Beecher, C.E.

***Pseudaviculopecten fasciculatus* (Hall)**

HYPOTYPE YPM 21556

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.51, tbl.2, pl.20, f.11.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

HYPOTYPE YPM 21557

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.51, tbl.2, pl.20, f.12.

Late Devonian, Chemungian. Lower middle Chemung, outcrop along NE side of Erie Railroad tracks beginning 0.2 mi SE of Chemung River Bridge and extending NW for 0.5 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

HYPOTYPE YPM 21558

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.51, tbl.2, pl.20, f.13.

Late Devonian, Chemungian. Fresh slump material, middle middle Chemung, outcrop along N side of NY Hwy 17 on Glory Hill W of Waverly, beginning 0.1 mi W of Chemung-Tioga county line and extending W 0.7 mi, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

HYPOTYPE YPM 25724

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.51, tbl.2.
Late Devonian, Chemungian. Lower middle Chemung, outcrop along NE side of Erie Railroad tracks beginning 0.2 mi SE of Chemung River Bridge and extending NW for 0.5 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

***Pseudaviculopecten princeps* (Conrad)**

HYPOTYPE YPM 14492

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.36, pl.2, f.20.[a]

Middle Devonian, Hamilton Grp. Canandaigua Lake, Ontario Co., New York, USA.

HYPOTYPE YPM 14495A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.36, pl.2, f.19.[b]

HYPOTYPE YPM 14495[c]

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.36.

Middle Devonian, Hamilton Grp. Pompey Hill, Onondaga Co., New York, USA. Collector: Bradley, F.H.

[a]Not pl.2, f.19.

[b]Incorrectly cited as YPM 14492 in the explanation for pl.2, f.18. Locality on label is Pompey Hill, NY, not Canandaigua Lake, NY, as stated in explanation for pl.2, f.19.

[c]This specimen lot is represented by 4 individuals.

***Pseudaviculopecten striatus* (Hall)**

HYPOTYPE YPM 21549

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.50, tbl.2, pl.20, f.3.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21550

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.50, tbl.2, pl.20, f.4.[a]

HYPOTYPE YPM 21551

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.50, tbl.2, pl.20, f.5.[a]

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21552

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.50, tbl.2, pl.20, f.6.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21554

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.50, tbl.2, pl.20, f.9.

HYPOTYPE YPM 21555

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.50, tbl.2, pl.20, f.10.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between Our Lady's Hill Road and eastern limit of parking area 0.4 mi to W, and about 1.5 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 25721

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.50, tbl.2.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 25722, 25723

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.50, tbl.2.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

[a]Locality given in tbl.2 is 23B, not 23A as published on p.50.

***Pseudomonotis beedei* Newell**

See *Pseudomonotis* cf. *hawni* Meek.

***Pseudomonotis equistriata* Beede**

HYPOTYPE YPM 25690

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.97, pl.17, f.5.

Late Pennsylvanian, Westerville Limestone. Kansas City, Missouri, USA.

HYPOTYPE YPM 25691

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.97, pl.17, f.9.

Late Pennsylvanian, Westerville Limestone. Turner, Kansas, USA.

HYPOTYPE YPM 26558

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.97, tf.2.5,2.6.[a]

Pennsylvanian. Coal Measures, Gallatin Co., Illinois, USA. Collector: Braun, F.A.

[a]Collection data indicates that YPM 26558 is probably the specimen illustrated as tf.2.5 and 2.6. If so, the magnifications published in the explanations are incorrect.

***Pseudomonotis* cf. *hawni* Meek**

HYPOTYPE YPM 25714

Beede, J.W. 1899. Kans. Univ. Quart. v.8, ser.A, n.2, p.83, pl.19, f.1d.

=*Pseudomonotis beedei* Newell. PARATYPE. Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.96, pl.16, f.3.[a]

Late Pennsylvanian, Cherryvale Fm, Westerville Limestone Mbr. Turner, Wyandotte Co., Kansas, USA.

[a]Incorrectly cited as YPM 3143.

***Pseudomonotis robusta* Beede**

HYPOTYPE YPM 25689

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.98, pl.17, f.2.

Late Pennsylvanian, Westerville Limestone. Turners Station, Wyandotte Co., Kansas, USA.

***Pseudoptera subtortuosa* (Meek and Hayden)**

HYPOTYPE YPM 24040

Speden, I.G. 1970. Postilla, n.145, p.66, pl.11, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion, *Gervillia*, base of LGAZ, faces 0.3 mi S of Peabody Locality C0120, and 1 mi SE of High Bank Creek, and 5.8 mi SW of Little Eagle, Little Eagle SW Quad., NE CORNER SE NE sec15T19NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24041

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.11, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Gervillia* concretion, outcrops, slumped in part, at toe of spur, S side of Grand River, and 8 mi SE of Little Eagle, Little Eagle SE Quad., E NW SW sec11T19NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24042

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.10, f.6,7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretion, exposures at E and W ends of dam retaining wall, 5 mi SW of Trail City, and 5 mi ESE of Glencross, Glencross NE Quad., SW NE NW sec21T17NR27E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24043A

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.11, f.5.

HYPOTYPE YPM 24043B

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.11, f.2.

HYPOTYPE YPM 24043

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.11, f.6.

Late Cretaceous, Maastrichtian, Fox Hills Fm, lower Trail City Mbr, Little Eagle Lithofacies. Float, most but not all from LNAZ (some from LGAZ), bluffs of Beaver Creek and tributaries, Seeman Park, 1 mi SE of Linton, Strasburg Quad., along section line CENTER N EDGE N NE sec20T132NR76W, along section line CENTER S EDGE S SE sec17 T132NR76W, Emmons Co., North Dakota, USA. Collector: Waage, K.M. and Barker, D., 1956.

HYPOTYPE YPM 24045

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.10, f.8,9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, cut on E side of second roadcut N of Little Eagle on McLaughlin-Little Eagle Road, and 3.3 mi N of Little Eagle, Little Eagle Quad., CENTER E SE sec5T20NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1957.

HYPOTYPE YPM 24046

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.10, f.10,11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretions, 9-ft zone from top of unit 2 to top of unit 3 of section, bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER SW NE sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961.

HYPOTYPE YPM 24047

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.12, f.1,2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, large *Gervillia*, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Scattered small concretions containing large *Gervillia* and occasional scaphite, SW-facing bluff about 700 ft SE of Peabody Locality C0010, Whitehorse Ridge, and 4.5 mi NW of Whitehorse, Whitehorse Quad., NW NW SE sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., 1957.

HYPOTYPE YPM 24048

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.11, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G., Speden, E.W., 1962 to 1963.

HYPOTYPE YPM 24049

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.10, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Gervillia* concretion, concretion 3, small isolated slump block, 0.2 mi SW of prairie trail, and 450 ft W of Peabody Locality C0240, Long's Ridge, and 6.9 mi W of Whitehorse, Little Moreau Lake Quad., NW NE NE SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24050

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.10, f.4.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, small exposure on W side of Whitehorse Creek, 0.25 mi W of stock dam, and 4.1 mi SSE of Glencross, Glencross Quad., S SW NE SW sec34T17NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24051

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.11, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Gervillia* concretion, boulder bank at N end of cut, bluffs along E side of Grand River, about 1.25 mi S of Bullhead, Bullhead Quad., CENTER N SW sec30T21NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24487

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.11, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Gervillia-Limopsis* concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24744

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.66, pl.11, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Gervillia* concretion, outcrops, slumped in part, at toe of spur, S side of Grand River, and 8 mi SE of Little Eagle, Little Eagle SE Quad., E NW SW sec11T19NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.10, f.4, should state loc. 229, Lower *nicolleti* AZ, instead of loc. 239, *Limopsis-Pseudoptera* AZ.

Pseudotechnophorus typicalis Kobayashi

HYPOTYPE YPM 28148

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.65, pl.20, f.3-6.

Early Ordovician, Wanwanian, Wanwankou Dolomite. Wan-wan-kou in the Niuhsintai Basin, southern Manchuria, People's Republic of China.

***Pteria*? *dalli* Stephenson**

HOLOTYPE YPM 14811

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.389, pl.3, f.19,20.

=*Phelopteria dalli.* Richards, H.G. 1958. Bull. N.J. Bur. Geol. Topo. v.61, pt.1, p.102.

PARATYPE YPM 14812[a]

Stephenson, L.W. 1936. Bull. Geol. Soc. Am. v.47, p.389.

=*Phelopteria dalli.* Richards, H.G. 1958. Bull. N.J. Bur. Geol. Topo. v.61, pt.1, p.102.

Late Cretaceous. Loose boulder brought up in a fisherman's trawl, from a depth of 200 fathoms, eastern part of Banquereau Bank, off Sable Island, Nova Scotia, Canada. Collector: Olson, L.

[a]This specimen lot is represented by 5 individuals, although Stephenson (1936) cites 8 .

***Pterinea* (*Caritodens*) *demissa* (Conrad)**

HYPOTYPE YPM 25973

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.24, f.5.

HYPOTYPE YPM 25974[a]

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.24, f.6.

Cretaceous, Pierre Shale. Near Chadron, Dawes Co., Nebraska, USA. Collector: Hatcher, J.B.

HYPOTYPE YPM 25975

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.24, f.7.

HYPOTYPE YPM 25976

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.25, f.1,3.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25977

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.25, f.2.

Late Ordovician, Reedsville Fm. Muddy siltstone, roadcut about 10 mi N of Broadford, along unpaved VA Primary Rt. 91, Clinch Mountain, Tazewell Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25978[a]

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.25, f.4.

Late Ordovician, Reedsville Fm. Interbedded red and green siltstone, roadcut 6.0 mi NW of Chilhowie, along VA Primary Rt. 107, Walker Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25979

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.25, f.5.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25980

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.26, f.1.

Late Ordovician, Reedsville Fm. Ferruginously stained sandstone, railroad cut 1.0 mi N of McCoy, along VA Secondary Rt. 652, Walker-Gap Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25981

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.26, f.2.

Late Ordovician, Martinsburg Fm. Sandstone, ferruginous stain, massively bedded, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25982

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.26, f.3.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25983
Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.26, f.4.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, roadcut 1.5 mi SE of Mt. Gate, along VA Primary Rt. 16, Clinch Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25984

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat.

Hist. n.34, p.124, pl.26, f.5.

Late Ordovician, Reedsville Fm. Shale, muddy siltstone, roadcut 2.5 mi N of Narrows, along US Rt. 460, East River Mountain, Giles Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25985[a]

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.26, f.6.

Late Ordovician, Martinsburg Fm. Muddy siltstone and sandstone, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Pterinea* (*Caritodens*) *demissa*? (Conrad)**

HYPOTYPE YPM 25986

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.26, f.7.

Late Ordovician, Reedsville Fm. Ferruginous stained sandstone and carbonate sandstone, roadcut 5.5 mi S of Mechanicsburg, along VA Secondary Rt. 738, Walker Mountain, Pulaski Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25987

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.27, f.1.

Late Ordovician, Reedsville Fm. Ferruginous stained sandstone and shale pebble conglomerate, roadcut and railroad cut at Buffalo Gap, along VA Primary Rt. 254, Little North Mountain, Augusta Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

***Pterinea bellineata* Billings**

HYPOTYPE YPM 10374

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.288, pl.31, f.4.

Ordovician, English Head Fm, English Head zone 4. Makasti Bay, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

HYPOTYPE YPM 10390

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.228, pl.29, f.9.

Late Ordovician, Ellis Bay Fm, Ellis Bay zone 4. Cliff 0.5 mi E of Junction Cliff, Quebec, Canada. Collector: Twenhofel, W.H.

***Pterinea emacerata* (Conrad)**

HYPOTYPE YPM 26940

Shrock, R.R. and W.H. Twenhofel. 1939. J. Paleont. v.13, n.3, p.262, pl.29, f.1.

Early Silurian, Pike Arm Fm. Fossiliferous argillite on Fossil Point, Pike Arm, New World Island, 0.25 mi E of canal between Pike and Herring Arms, Newfoundland, Canada. Collector: Twenhofel, W.H., 1936.

***Pterinea laurentina* Twenhofel**

HOLOTYPE YPM 10382

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.229, pl.24, f.7.

PARATYPE YPM 22770

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.229.

Silurian, Becscie Fm, Becscie zone 3. Wreck Beach, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

***Pterinea mclearni* Northrop**

HOLOTYPE YPM 13338

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.199, pl.18, f.7.

Middle Silurian, Niagaran, Clemville Fm. *Hyattidina* zone, above *Camarotoechia* zone, Little Port Daniel River, about 0.25 mi upstream from bridge, outskirts of Clemville, Quebec, Canada. Collector: Schuchert, C., 8/1923.

***Pterinea*? sp.**

HYPOTYPE YPM 25988

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.124, pl.27, f.2.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, few shale layers, roadcut 2.5 mi SW of Fagg, along VA Secondary Rt. 603, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

***Pterinopecten strictus* Hall**

HYPOTYPE YPM 21566

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.55, pl.23, f.5.[a]

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks

turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21567

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.55, pl.23, f.6.[b]

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

HYPOTYPE YPM 21568

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.55, pl.23, f.7.[c]

Late Devonian, Chemungian. Lower lower Chemung, near top of steep grade on NY Rt. 223 leading to and about 1.5 mi SW of Swartwood, Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

HYPOTYPE YPM 21569

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.55, pl.23, f.8.[d]

Late Devonian, Chemungian. Upper middle Chemung, 10-ft roadcut on N side of 3rd leg up unimproved switchback private road (elevation 1100 ft), which parallels Coleman Avenue, on the SE side of Hawley Hill, 1st road SE of Fitch Bridge Road on NY Hwy 17E, and about 3 mi W of downtown Elmira, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

[a]Not p.62, pl.26, f.6.

[b]Not p.62, pl.26, f.7.

[c]Not p.62, pl.26, f.8.

[d]Not p.62, pl.26, f.9.

***Pterinopecten suborbicularis* (Hall)**

HYPOTYPE YPM 21570

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.55, pl.23, f.9.[a]

HYPOTYPE YPM 21571

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.55, pl.23, f.10.[b]

Late Devonian, Chemungian. Upper upper Chemung, roadcut along S side of unimproved road following valley of Church Creek, 1.4 mi E of junction with road running N from Lindley, just E of bridge crossing creek, Steuben Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

[a]Not p.62, pl.26, f.10.

[b]Not p.62, pl.26, f.11.

***Pterinopectinella welleri* Newell**

PARATYPE YPM 14491

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.41, pl.3, f.21.

Late Pennsylvanian, Canyon Grp, Palo Pinto Limestone. Canyon 3 mi W of Strawn, Palo Pinto Co., Texas, USA. Collector: Schuchert, C., 1919.

***Ptychodesma knappianum* Hall and Whitfield**

HYPOTYPE YPM 38346

Carter, J.G., and M.J.S. Tevesz. 1978. Phil. Trans. Roy. Soc. London, v.284, p.367, pl.1, f.1a.[a]

HYPOTYPE YPM 38347

Carter, J.G., and M.J.S. Tevesz. 1978. Phil. Trans. Roy. Soc. London, v.284, p.367, pl.1, f.1b,1c, 2b.[b]

Carter, J.G. 1990a. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.182, tf.20A.

HYPOTYPE YPM 38348

Carter, J.G., and M.J.S. Tevesz. 1978. Phil. Trans. Roy. Soc. London, v.284, p.367, pl.1, f.1d,1e.[c]

HYPOTYPE YPM 38349

Carter, J.G., and M.J.S. Tevesz. 1978. Phil. Trans. Roy. Soc. London, v.284, p.367, pl.1, f.2c.[d]

HYPOTYPE YPM 38350

Carter, J.G., and M.J.S. Tevesz. 1978. Phil. Trans. Roy. Soc. London, v.284, p.367, pl.2, f.3a-3c, pl.3, f.4.[e]

Carter, J.G. 1990a. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.182, tf.20F.[f]
Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.321.[f]

HYPOTYPE YPM 38351

Carter, J.G., and M.J.S. Tevesz. 1978. Phil. Trans. Roy. Soc. London, v.284, p.367, pl.4, f.5a-5c.[g]

Carter, J.G. 1990a. Skeletal Biomineralization:

Patterns, Processes, and Evolutionary Trends, v.1, p.182, tf.20C,20E.[g]

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.321.[g]

HYPOTYPE YPM 38429–38433

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.321.[h]

Middle Devonian, Hamilton Grp, Marcellus Shale, Solsville Mbr. "Peterboro South," small abandoned quarry on E side of Swamp Road along small creek, and 0.9 mi SSE of Bliss Corners, and 3.0 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with Invertebrate Zoology catalog number YPM 10057-8.

[b]Cited with Invertebrate Zoology catalog number YPM 10057-7.

[c]Cited with Invertebrate Zoology catalog number YPM 10057-9.

[d]Cited with Invertebrate Zoology catalog number YPM 10057-10.

[e]Incorrectly cited as YPM 10057-3; the correct Invertebrate Zoology catalog number is 10057-1.

[f]Cited with Invertebrate Zoology catalog number YPM 10057-1.

[g]Cited with Invertebrate Zoology catalog number YPM 10057-2.

[h]Cited with Invertebrate Zoology catalog number YPM 10057.

***Ptychodesma neglectum* (Hall)**

HYPOTYPE YPM 21504

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.12.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21505

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.13.

Late Devonian, Chemungian. Middle middle Chemung, small quarry on N side of and near top of Our Lady's Hill Road, about 100 ft N of NY Hwy 17 and 900 ft W of Chemung-Tioga county line, S side of Glory Hill, and about 1 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21506

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.14.

HYPOTYPE YPM 21507

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.15.

HYPOTYPE YPM 21508

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.16.

HYPOTYPE YPM 21509

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.17.

HYPOTYPE YPM 21510A

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.18(upper).

HYPOTYPE YPM 21510B

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.18(lower).

HYPOTYPE YPM 21511

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.19.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21512

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.20.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21513

McAlester, A.L. 1962. Bull. Peabody Mus. Nat.

Hist. n.16, p.41, pl.16, f.21.

HYPOTYPE YPM 21514

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.22.

HYPOTYPE YPM 21515

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41, pl.16, f.23.

HYPOTYPE YPM 62443

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.41.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

***Ptychodesma* sp.**

HYPOTYPE YPM 22372

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.5.

HYPOTYPE YPM 22373

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.6.

HYPOTYPE YPM 22374

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.7.

HYPOTYPE YPM 22375

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.8.

HYPOTYPE YPM 26538, 26539

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046.

Devonian, Accraian Series. Clay shale unit, small quarry, W side of mouth of creek, 3750 ft W of Christianborg Castle, and just E of Accra Club golf course and "Area Beach," Accra, Ghana. Collector: Saul, J.M., 8/1959.

***Ptychopteria* (*Actinopteria*) *boydi* (Conrad)**

HYPOTYPE YPM 38418

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.334.[a]

Middle Devonian, Hamilton Grp, Marcellus Shale. Near gym, base of hill, about 0.7 mi SSE of Hamilton, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with Invertebrate Zoology catalog number YPM 10224.

***Ptychopteria* (*Actinopteria*) *decussata* (Hall)**

HYPOTYPE YPM 38420

Carter, J.G., and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, p.868, tf.18A,18B.[a]

Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.334.[a]

Middle Devonian, Hamilton Grp, Skaneateles Shale, Delphi Station Mbr. "Bee" Quarry, S side of South Butler Road, 0.4 mi W of Davis Corners, and 2.1 mi N of North St. in Morrisville, Madison Co., New York, USA.

[a]Cited with Invertebrate Zoology catalog number YPM 10229.

***Ptychopteria* (*Actinopteria*) aff. *P.* (*A.*) *epsilon* (Hall)**

HYPOTYPE YPM 16435[a]

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.98, pl.59, f.10.

HYPOTYPE YPM 16438[a]

Pojeta, J., Jr. 1986. U.S. Geol. Surv. Prof. Pap. n.1394-G, p.98, pl.61, f.1.

Middle Devonian, Traverse Grp, Petoskey Limestone. Upper Petoskey, 1 mi N of Norwood, on shore of Lake Michigan, Charlevoix Co., Michigan, USA. Collector: Cloud, P.E. and Yang, T., 1938.

[a]This specimen lot is represented by 3 individuals.

***Ptychopteria beecheri* Hall**

SYNTYPE YPM 6848A

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.143, pl.85, f.21.

SYNTYPE YPM 6848B
Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.143, pl.85, f.22.

Late Devonian, Chemung Grp, Chemung Fm. In a compact sandstone [of Upper Chemung Grp] in the lower beds at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria* (*Cornellites*) *fasciculata* (Goldfuss)**

HYPOTYPE YPM 38443

Carter, J.G., and M.J.S. Tevesz. 1978. J. Paleont. v.52, n.4, tf.19A.[a]

=*Cornellites fasciculata* (Goldfuss). Carter, J.G. 1990b. Skeletal Biomineralization: Patterns, Processes, and Evolutionary Trends, v.1, p.333.[a]

Middle Devonian, Hamilton Grp, Marcellus Shale, Solsville Mbr. "Peterboro South," small abandoned quarry on E side of Swamp Road along small creek, and 0.9 mi SSE of Bliss Corners, and 3.0 mi SSE of Peterboro, Madison Co., New York, USA. Collector: Carter, J.G.

[a]Cited with Invertebrate Zoology catalog number YPM 10064.

***Ptychopteria falcata* Hall**

Syntype YPM 26244

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.136, pl.85, f.6.

Syntype YPM 26245

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.136, pl.85, f.7.

Late Devonian, Chemung Grp, Chemung Fm. Sandstone [of Upper Chemung Grp] at Alleghany Springs, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria galene* Hall**

Syntype YPM 26236

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.142, pl.85, f.29.

Syntype YPM 26237

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.142, pl.85, f.30.

Syntype YPM 26238

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.142, pl.85, f.31.

Late Devonian, Chemung Grp, Chemung Fm. In the lower beds of the Upper Division [of the Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria gibbosa* Hall**

Syntype YPM 26235A

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.149, pl.85, f.5.

Syntype YPM 26235B

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.149.

Late Devonian, Chemung Grp, Chemung Fm. In the upper beds [of the Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria lata* Hall**

Syntype YPM 6847A

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.145, pl.85, f.23.

Syntype YPM 6847B

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.145, pl.85, f.24,25.

Late Devonian, Chemung Grp, Chemung Fm. In the middle beds [of the Upper Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria lobata* Hall**

Holotype YPM 26240

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.150, pl.85, f.37.

Late Devonian, Chemung Grp, Chemung Fm. Sandstone [of Upper Chemung Grp], Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria perlata* Hall**

Syntype YPM 26241

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.147, pl.85, f.38.

Syntype YPM 26242

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.147, pl.85, f.39.

Late Devonian, Chemung Grp, Chemung Fm. In the upper beds [of the Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria sinuosa* Hall**

Hypotype YPM 26234

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.130, pl.85, f.8.

Late Devonian, Chemung Grp, Chemung Fm. Sandstone [of Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria spatulata* Hall**

Holotype YPM 6846

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.144, pl.85, f.20.

Late Devonian, Chemung Grp, Chemung Fm. In the Upper Chemung Grp at Warren, Warren Co.,

Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria thalia* Hall**

SYNTYPE YPM 26254

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.148, pl.85, f.32.

SYNTYPE YPM 26255

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.148, pl.85, f.33.

Late Devonian, Chemung Grp, Chemung Fm. Sandstone [of Upper Chemung Grp] at Alleghany Springs, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Ptychopteria vanuxemi* Hall**

HOLOTYPE YPM 26233

Hall, J. 1884. Paleont. N.Y. v.5, pt.1, p.151, pl.85, f.36.

Late Devonian, Chemung Grp, Chemung Fm. In the highest beds [of the Upper Chemung Grp] at Warren, Warren Co., Pennsylvania, USA. Collector: Beecher, C.E., 1870.

***Requienia ammonia* Nathorst**

HYPOTYPE YPM 35724

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.6E-G.

Early Cretaceous, Urgonian. Orgon, Bouche de Rhone, France.

***Rhombopteria implexa* Northrop**

SYNTYPE YPM 13336

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.198, pl.17, f.29.

SYNTYPE YPM 13337

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.198, pl.17, f.30.

Middle Silurian, Niagaran, Indian Point Fm. Eastern portion (higher in section), shore at Indian Point, Quebec, Canada. Collector: Northrop, S.A., 1927.

SYNTYPE YPM 13339

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.198, pl.17, f.31.

SYNTYPE YPM 29314

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.198, pl.17, f.32.

SYNTYPE YPM 29315[a]

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.198, pl.17, f.33.

Middle Silurian, Niagaran, West Point Fm, West Point Mbr I. At lighthouse, West Point, Quebec, Canada. Collector: Northrop, S.A., 1927.

[a]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Rhytimya prinstana* Twenhofel**

HOLOTYPE YPM 10371

Twenhofel, W.H. 1928. Mem. Geol. Surv. Can. n.154, p.233, pl.24, f.3,4.

Ordovician, Ellis Bay Fm, Ellis Bay zone 6. W side of Prinsta Bay, Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H., 1909.

***Sanguinolaria oblata* Whitfield**

HOLOTYPE YPM 6890

Whitfield, R.P. 1876. U.S. War Dept. p.144, pl.2, f.3,4.

Whitfield, R.P. 1899. Ann. N.Y. Acad. Sci. v.12, n.8, p.164.[a]

Late Cretaceous, Fox Hills Fm. Sandstone ledges nearly at the level of Box Elder Creek and almost 1 mi SW of Box Elder Station, Fergus Co., Montana, USA. Collector: Dana, E.S. and Grinnell, G.B., 7/20/1875.

[a]At time of publication, specimen was reposited at the U.S. National Museum; it has since been acquired by the Yale Peabody Museum.

***Scapharca* sp. ind.**

HYPOTYPE YPM 577

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.205.

=*Arca* (*Cunearca*) *zorritense* Spieker. HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.97, pl.5, f.4,5.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Schizodus alpinus* (Hall)**

HYPOTYPE YPM 26285–26287

Newell, N.D. and D.W. Boyd. 1975. Bull. Am. Mus. Nat. Hist. v.154, art.2, p.101.

HYPOTYPE YPM 27821

Newell, N.D. and D.W. Boyd. 1975. Bull. Am. Mus. Nat. Hist. v.154, art.2, p.101, tf.38F-H.

HYPOTYPE YPM 27822

Newell, N.D. and D.W. Boyd. 1975. Bull. Am. Mus. Nat. Hist. v.154, art.2, p.101, tf.8.

Middle Pennsylvanian, Breathitt Fm, Kendrick Shale Mbr. Dr. G.T. Kendrick Farm, head of Cow Creek (off of Levisa Fork of Big Sandy River), Floyd Co., Kentucky, USA. Collector: Jillson, W.R., 4/6/1919.

***Schizodus oklahomensis* Beede**

HYPOTYPE YPM 16334

Newell, N.D. 1940. Bull. Geol. Soc. Am. v.51, p.291, pl.1, f.4.

Late Permian, Whitehorse Grp, Rush Springs Fm, Dozier Sandstone Mbr. Dolomite beds at base of Dozier, section 43, block 19, H.G.&N. Survey, Collingsworth Co., Texas, USA. Collector: Roth, R.I.

***Septimyalina burmei* Newell**

PARATYPE? YPM 31876–31893

Newell, N.D. 1942. Bull. Kans. Geol. Surv. v.10, pt.2, p.67.[a]

Early Permian, Council Grove Grp, Cottonwood Limestone. Hill W of Grenola, Elk Co., Kansas, USA. Collector: Condra, G.E. and Udden, J.E.

[a]Specimen labeled as paratype by N.D. Newell, but was neither figured nor mentioned specifically in the publication.

***Solecurtus* sp. ind.**

HYPOTYPE YPM 562, 31753

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.200.
=*Tagelus gibbus* (Spengler). HYPOTYPE. Spieker, E.M. 1922. Johns Hopkins Univ. Stud. Geol. n.3, p.162.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Solemya subplicata* (Meek and Hayden)**

HYPOTYPE YPM 23993

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.44, pl.4, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, concretion 1, in gully 6 ft below *Limopsis* layer, prominent isolated knob to SW of main ridge, on W side of prairie trail, with several outcrops on W flanks, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23994

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.44, pl.4, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 3, 7.5 ft below *Limopsis* layer, in face on SW side of slump block 300 ft SSW of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE NW sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 23995

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.44, pl.4, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Sphenodiscus* layer?. Float, concretion, SW-facing exposures on ridge extending NW from bluffs on Timber Lake Mbr, and about 0.5 mi W of Peabody Locality C0089, and 2.5 mi WSW of Green Grass, Lantry NE Quad., NE SE sec21T14NR23E, Dewey Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 23996

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.44, pl.4, f.8.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone?. Float, exposures on hill slope immediately E of E abutment of stock dam, about 0.5 mi N of Johnson Brothers Ranch house, and 6 mi S of Little Eagle, Little Eagle SE Quad., NW CORNER NE NW sec29T19NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M.

[a]The explanation for pl.4, f.8, should state *Protocardia-Oxytoma*? AZ instead of *Protocardia-Oxytoma* AZ.

***Solenosteira alternata* (Nelson)**
See *Cuma alternata* Nelson.

***Sowteria canadensis* (Raymond)**
See *Whitella canadensis* Raymond.

***Spaniorinus nicolleti* Speden**

HOLOTYPE YPM 24405

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99, pl.21, f.18.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, prominent isolated knob to SW of main ridge, on W side of prairie trail, with several outcrops on W flanks, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24403

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99, pl.21, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 7a, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., CENTER E NW NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24404

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99, pl.21, f.14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion a, SW-facing exposure on SE-trending ridge, 3.5 mi ENE of Little Eagle, Wakpala NW Quad., SE NW sec13T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24406

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99, pl.21, f.17.
Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretion, steep slopes on both sides of tributary gully, 0-0.3 mi S of the Grand River, and 4 mi NNE of Miscol, Miscol Quad., W NW NE sec2T20NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24407

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99, pl.21, f.16.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 3, 7.5 ft below *Limopsis* layer, in face on SW side of slump block 300 ft SSW of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE NW sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24408

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99, pl.22, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, W-facing bluffs E of stream valley, 1 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 4.5 mi NNE of Green Grass, Parade NW Quad., CENTER NW NW sec33T15NR24E, SW CORNER sec28T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24409

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99, pl.22, f.2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24410

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, high in zone, 3 grassy knolls 1 mi W of McLaughlin-Little Eagle Road, and 3.3 mi NNW of Little Eagle, Little Eagle Quad., NE CORNER sec7T20NR27E, SE CORNER sec6T20NR27E, Corson Co., South Dakota, USA. Collector: Mello, J.F., 1960.

PARATYPE YPM 24568

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 13, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-

trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24569

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 7, bluffs around SE end of spur, 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., SE SW SW sec14T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24570

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Small face at SE end of spur, across gully 0.2 mi NNE of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE SW SW SE sec19T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24571

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, concretion 3, face and outcrops at 2 separate sites around S end of SSE-trending ridge at SW corner of Long's Ridge, and 7.3 mi W of Whitehorse, Little Moreau Lake Quad., SW NE SE SE sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24572

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Gervillia* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Gervillia* concretions, high bluff on N bank of Grand River just W of Bullhead, Bullhead Quad., S NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1956 to 1959.

PARATYPE YPM 24573

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 14, *Gervillia* association at top of LNAZ, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24574

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretion 3, concretion 9, concretion 10, concretion 11, outcrops around W end of a spur to W of prairie trail and S of stock dam, and 0.5 mi W of Peabody Locality C0247, S side of Long's Ridge, and 7.9 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE SE NW sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24575

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion 1, 3 ft below LGAZ, face on SW side of SSE-trending spur, 660 ft NW of Peabody Locality C0231, and at E end of Long's Ridge, and 5.7 mi W of Whitehorse, Little Moreau Lake Quad., CENTER E E SW NE sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24576

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretions, high in LNAZ above typical *Nicolleti*-type concretions, roadcut on McLaughlin-Little Eagle Road through 1st hill N of and about 2.8 mi N of Little Eagle, Little Eagle Quad., SE NE NE sec8T20NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1956.

PARATYPE YPM 24577, 24578

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* Concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus*

concretion, W-facing bluffs E of stream valley, 1 mi E of SD Rt. 63, SE of O'Leary Ranch house, and about 1 mi N of Moreau River, and 4.5 mi NNE of Green Grass, Parade NW Quad., CENTER NW NW sec33T15NR24E, SW CORNER sec28T15NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24579

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24580

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Concretion 1, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NE NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24581

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, 3 grassy knolls 1 mi W of McLaughlin-Little Eagle Road, and 3.3 mi NNW of Little Eagle, Little Eagle Quad., NE CORNER sec7T20NR27E, SE CORNER sec6T20NR27E, Corson Co., South Dakota, USA. Collector: Mello, J.F., 1960.

PARATYPE YPM 24582, 24583

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Low in concretion 2, end of spur, toe of spur trending S from Whitehorse Ridge, 0.6 mi E of Whitehorse Road, and 0.6 mi S of trail, and 6.0 mi NW of Whitehorse, Whitehorse Quad., NW CORNER NW NE sec30T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24584

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* association, bluffs around SE end of spur, 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., SE SW SW sec14T20NR25E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

PARATYPE YPM 24585

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, SE side of spur, exposures on small E-trending spur, 1 mi S of Maxon Ranch house, and 2.5 mi NW of Little Eagle, Little Eagle Quad., NE CORNER NW sec18T20NR27E, NW CORNER NE sec18T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24586

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, the western of 2 slump-exposed faces in the banks of, and along tributaries of, 1st major stream E of Elk Butte, and about 2 mi ENE of Elk Butte, and 3.5 mi NE of Little Eagle, Little Eagle Quad., Wakpala NW Quad., N NE SE sec11T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24587

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion 1, slumped outcrops around W end of spur 0.4 mi SW of Long's Ridge prairie trail, and about 0.25 mi NNW of Peabody Locality C0246, Long's Ridge, and 7.1 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NW NW sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24588

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti*

Assemblage Zone. Concretion, small exposure on W side of Whitehorse Creek, 0.25 mi W of stock dam, and 4.1 mi SSE of Glencross, Glencross Quad., S SW NE SW sec34T17NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24589

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Miscellaneous concretions, small slumped face on SW side of ridge, N side of Plum Creek, and 5 mi ESE of Miscol, Miscol NE Quad., N NW SE sec32T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24590

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 2, in place in slumped face, faces 0.3 mi S of Peabody Locality C0120, and 1 mi SE of High Bank Creek, and 5.8 mi SW of Little Eagle, Little Eagle SW Quad., NE CORNER SE NE sec15T19NR26E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

PARATYPE YPM 24591

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Float from just below CAZ layer, concretion, exposures on NW-facing bluff and spurs below it, overlooking Moreau River, and 1.5-2 mi SW of Green Grass, Lantry NE Quad., E NE sec27T14NR23E, NW CORNER sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24592

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretion 3, face on W side of SSE-trending spur, 600 ft NNW of Peabody Locality C0236, and 1.2 mi W of E end of Long's Ridge, Long's Ridge, and 6.1 mi W of Whitehorse, Little Moreau Lake Quad., SW CORNER SW NE SW sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24593

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretion 6, face on SW side of SSE-trending spur, 1.25 mi W of E end of Long's Ridge, Long's Ridge, and 6 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SE SW sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24594

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 2, face on SW side of SSE-trending spur, 1.25 mi W of E end of Long's Ridge, Long's Ridge, and 6 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SE SW sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24595

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. In grass roots, concretion on bench, next knob up, and about 20 ft above *Gervillia* bench, exposures on small E-trending spur, 1 mi S of Maxon Ranch house, and 2.5 mi NW of Little Eagle, Little Eagle Quad., CENTER W NW NW NE sec18T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24596, 24597

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 1, face on SW side of S-trending spur, 2.25 mi W of E end of Long's Ridge, Long's Ridge, and 6.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER E SW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24598

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. 3 concretions, chiefly NE side of narrow gully at

SW end of Peabody Locality 52, 3 mi SSW of Little Eagle, and 0.5 mi W of SD Rt. 63, Little Eagle Quad., NW NE NW sec8T19NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

PARATYPE YPM 24599

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 2, face on SW side of S-trending spur, 2.25 mi W of E end of Long's Ridge, Long's Ridge, and 6.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER E SW SE SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24600

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24601

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 3, small outcrop at W end of spur, SW of prairie trail, and 900 ft NW of Peabody Locality C0239, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NE SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24602

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, in grass roots, concretion 2, top of knobs to E of fault, Whitehorse Ridge, and 5 mi NW of Whitehorse, Whitehorse Quad., CENTER E NW NW sec28T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24603

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 13, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24604

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 7, bluffs around SE end of spur, 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., SE SW SW sec14T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24605

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Small face at SE end of spur, across gully 0.2 mi NNE of Peabody Locality C0066, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., SE SW SW SE sec19T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24606–24611

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24612, 24613

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota,

USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24614, 24615

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, sandy zone, creek cut on N side of Snake Creek, 2.7 mi NNE of Trail City, Wakpala SW Quad., N N SW NE sec19T18NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24616–24618

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, prominent isolated knob to SW of main ridge, on W side of prairie trail, with several outcrops on W flanks, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24619, 24620

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24621–24624

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, N end of site down near creek level, tributary creek on N side of High Bank Creek, 11 mi SW of Little Eagle, Little Eagle SW Quad., CENTER NE NW sec25T19NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24625

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, *Limopsis* concretion, exposures at E and W ends of dam retaining wall, 5 mi SW of Trail City, and 5 mi ESE of Glencross, Glencross NE Quad., SW NE NW sec21T17NR27E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24626–24629

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, small outcrop at W end of spur, SW of prairie trail, and 900 ft NW of Peabody Locality C0239, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NE SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24630–24638, 24650, 24651

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, face on W side of SSE-trending ridge, 450 ft N of Peabody Locality C0242, and at SW corner of Long's Ridge, and 7.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER S NE SE sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24652–24654

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *abyssinus-mandanensis* Biofacies. Concretion, 1-2 ft below Timber Lake Sandstone, exposures along S to SE-trending spur 0.2-0.7 mi W of McLaughlin-Little Eagle Road, and 3 mi NNW of Little Eagle, Little Eagle Quad., CENTER N N sec8T20NR27E, CENTER S S sec5T20NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

PARATYPE YPM 24655–24658

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.99.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, prominent isolated knob to SW of main ridge, on W side of prairie trail, with several outcrops on W flanks, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The description on p.100 and the explanation for pl.21, f.18, should state Lower *nicolleti* AZ instead of *Protocardia-Oxytoma* AZ.

***Spathella*? sp.**

HYPOTYPE YPM 25792

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.991, tbl.1,2.

Late Devonian, Snyder Creek Shale. Near Fulton, Callaway Co., Missouri, USA. Collector: Greger, D.K.

***Spathella typica* Hall**

HYPOTYPE YPM 21535

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.3.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21536

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.4.

Late Devonian, Chemungian. Upper lower Chemung, roadcut on both sides of new road (not shown in 1942 edition) between Broome County Airport and village of West Chenango, 0.7 mi SW of West Chenango, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21537

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.5.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21538

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.6.

Late Devonian, Chemungian. Lower middle Chemung, along Erie Railroad tracks 0.5 mi E of Chemung River Bridge, 0.2 mi E of Wellsburg along NY Hwy 427 and Erie Railroad, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

HYPOTYPE YPM 21539

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.7.

Late Devonian, Chemungian. Middle upper Chemung, roadcut on N side of NY Hwy 84 at base of Buck Hill, 1.75 mi E of intersection with US Hwy 15 at Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 21540

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.8.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 21541

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.9.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21542

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.10.

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 21543

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.11.

Late Devonian, Chemungian. Float, middle middle Chemung, talus slope on N side of NY Hwy 17 between parking area and W limit of fresh talus, and between 0.6 and 0.8 mi W of Chemung-Tioga county line, and about 2 mi W of Waverly, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/20/1958.

HYPOTYPE YPM 21544

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.12.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along

the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 21545

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.47, pl.19, f.13.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 22659

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.990, tbl.1,2, pl.122, f.20.

Late Devonian, Snyder Creek Shale. Calcareous mudstone, a few feet below the base of the Burlington Limestone (probably unit 2 of Branson (1942)), small cliff and creekbed exposures along Snyder Creek, NW SW sec17T46NR9W, Callaway Co., Missouri, USA. Collector: McAlester, A.L., 9/1961.

HYPOTYPE YPM 22660

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.990, tbl.1,2, pl.122, f.21.

HYPOTYPE YPM 22661

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.990, tbl.1,2, pl.122, f.23,24.

HYPOTYPE YPM 22662

McAlester, A.L. 1963. J. Paleont. v.37, n.5, p.990, tbl.1,2, pl.122, f.25.

Late Devonian, Snyder Creek Shale. Near Fulton, Callaway Co., Missouri, USA. Collector: Greger, D.K.

***Sphaerium rhomboideum* (Say)**

HYPOTYPE YPM 12840A

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.241, pl.2, f.1a.

HYPOTYPE YPM 12840B

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.241, pl.2, f.1b.

HYPOTYPE YPM 12840C

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.241, pl.2, f.1c.

HYPOTYPE YPM 12840D[a]

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.241, pl.2, f.1d.

HYPOTYPE YPM 12840E

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.241, pl.2, f.1e.

HYPOTYPE YPM 12840F

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.241, pl.2, f.1f.

HYPOTYPE YPM 12840G

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.241, pl.2, f.1g.

HYPOTYPE YPM 12840H

Cooper, G.A. 1930. Bull. Conn. Geol. Nat. Hist. Surv. n.47, p.241, pl.2, f.1h.

Quaternary, Holocene. Wabash time, a pit excavated in a hollow, a short distance NE of the Park Lane Schoolhouse, 1.75 mi N of New Milford, Litchfield Co., Connecticut, USA. Collector: Cooper, G.A.

[a] A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Sphenoceramus* sp.**

HYPOTYPE YPM 34718

Hicks, J.F., J.D. Obradovich and L. Tauxe. 1995. J. Geol. v.103. p.246.

Late Cretaceous, Telegraph Creek Fm, Elk Basin Sandstone Mbr, *Scaphites hippocrepsis* 1 Zone. Top surface of uppermost unit of Elk Basin, N-S butte top ridge, E side of basinal cove of anticline, 0.5-0.7 mi due N of Elk Basin Village (abandoned), Elk Basin, Elk Basin Quad., straddles Range line E SIDE SE NE NE sec24T58NR100W, straddles Range line W SIDE SW NW NW sec19T58NR99W, SE SE SE sec35T9SR100W, Carbon Co., Montana, USA. Collector: Hicks, J.F., 1992.

***Sphenotus signatus* Hall**

HOLOTYPE YPM 6807

Hall, J. 1885. Paleont. N.Y. v.5, pt.1, p.405, pl.94, f.3.

Early Mississippian, Waverly Grp. Warren, Warren Co., Pennsylvania, USA.

***Sphenotus* sp.**

HYPOTYPE YPM 22382

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.15.

HYPOTYPE YPM 22383

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.16.

HYPOTYPE YPM 22384

Saul, J.M., A.J. Boucot and R.M. Finks. 1963. J. Paleont. v.37, n.5, p.1046, pl.136, f.17.

Devonian, Accraian Series. Clay shale unit, small quarry, W side of mouth of creek, 3750 ft W of Christianborg Castle, and just E of Accra Club golf course and "Area Beach," Accra, Ghana. Collector: Saul, J.M., 8/1959.

***Sphenotus tiogensis* McAlester**

HOLOTYPE YPM 25773

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.1.[a]

Late Devonian, Chemungian. Middle upper Chemung, roadcut on N side of NY Hwy 84 at base of Buck Hill, 1.75 mi E of intersection with US Hwy 15 at Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 25769

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.2.[b]

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 25770

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.3.[c]

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 25771

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.4.[d]

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 25772

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.5.[e]

HYPOTYPE YPM 25774

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.6.[f]

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 25775

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.7.[g]

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

HYPOTYPE YPM 25776

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.8.[h]

HYPOTYPE YPM 25777

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.9.[j]

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

HYPOTYPE YPM 25778

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.10.[k]

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

HYPOTYPE YPM 25779

McAlester, A.L. 1962. Bull. Peabody Mus. Nat.

Hist. n.16, p.62, pl.26, f.11.[l]

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

Hypotype YPM 25780

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.12.[m]

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

Hypotype YPM 25781

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.13.[n]

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

Hypotype YPM 25782

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62, pl.26, f.14.[o]

Late Devonian, Chemungian. Lower middle Chemung, small quarry on S side of NY Hwy 427 (and Erie Railroad), 0.4 mi E (not W) of Chemung River Bridge, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/23/1957.

Hypotype YPM 62476, 62495

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Middle lower Chemung, small quarry above St. Johns Pond, 1 mi E of West Chenango on S side of paved road connecting West Chenango to Glen Castle, Broome Co., New York, USA. Collector: McAlester, A.L., 7/9/1957.

Hypotype YPM 62477, 62487, 62490, 62491, 62494, 62504–62506

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Middle lower Chemung, small roadcut on W side of paved road between New Ireland and West Chenango, 0.6 mi N of village of New Ireland, Broome Co., New York, USA. Collector: McAlester, A.L., 7/10/1957.

Hypotype YPM 62478

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Lawrenceville, Tioga Co., New York, USA.

Hypotype YPM 62479

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Near top of "Dcc" of Williams, small exposures between 1245 and 1312 ft elevation, W side of N-S segment of Cherry Hill Road, and about 0.3 mi NW of intersection with NY Rt. 26, and about 2.5 mi ENE of Nanticoke, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 62480–62483, 62485, 62502, 62510–62512

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Lower upper Chemung, exposures in banks and bed of Mutton Lane Creek on both sides of NY Hwy 84 at base of Buck Hill, 1.2 mi E of intersection with US Hwy 15 in Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

Hypotype YPM 62484

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Middle middle Chemung, exposures in banks and bed of small stream at head (W) of Three Falls Glen, 0.1 mi W of Ridgebury and extending W (upstream) 0.8 mi, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/22/1958.

Hypotype YPM 62486

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Lower lower Chemung, creek bank and roadcut along Twist Run Road, 0.6 mi SE of Union Center, 1 ft siltstone interval above 6 ft dark shale along S side of road at eastern end of outcrop, approximate elevation 1050 ft, Broome Co., New York, USA. Collector: McAlester, A.L., 7/12/1957.

Hypotype YPM 62488, 62489

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

HYPOTYPE YPM 62492, 62496, 62500

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Middle middle Chemung, 1 ft bed in banks and beds of Justice Run, 0.3 mi E of 1st (easternmost) bridge over stream, 1 ft below 2 ft waterfall, 200 ft E (downstream) from large cliff on S side of stream, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/23/1958.

HYPOTYPE YPM 62493, 62501, 62513

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Middle upper Chemung, roadcut on N side of NY Hwy 84 at base of Buck Hill, 1.75 mi E of intersection with US Hwy 15 at Tioga Junction, Tioga Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/17/1958.

HYPOTYPE YPM 62497

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Middle middle Chemung, roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill, beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 6/21/1957.

HYPOTYPE YPM 62498

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Lower middle Chemung, roadcut along N side of NY Hwy 17, beginning 0.5 mi W of junction with NY Hwy 282 in Smithboro and extending W for 0.2 mi, Tioga Co., New York, USA. Collector: McAlester, A.L., 7/15/1957.

HYPOTYPE YPM 62499, 62503

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Middle lower Chemung, roadcut on N side of paved road connecting Windham Center and Windham Heights, 0.2 mi W of village of Windham Center, Bradford Co., Pennsylvania, USA. Collector: McAlester, A.L., 8/21/1958.

HYPOTYPE YPM 62507, 62508

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Lower middle Chemung, small quarry in front of large industrial building on S side of Mountain View Road, 0.4 mi NW of junction with NY Hwy 328 material, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/17/1957.

HYPOTYPE YPM 62509

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.62.

Late Devonian, Chemungian. Upper middle Chemung, roadcut along paved road leading up Harris Hill N of Pine Grove School, 0.5 mi N of Pine Grove School, extending N 0.7 mi, fresh slump material, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/24/1958.

[a]Incorrectly cited as YPM 21561 on p.62 and in the explanation for pl.26, f.1.

[b]Incorrectly cited as YPM 21562 on p.62 and in the explanation for pl.26, f.2.

[c]Incorrectly cited as YPM 21563 on p.62 and in the explanation for pl.26, f.3.

[d]Incorrectly cited as YPM 21564 on p.62 and in the explanation for pl.26, f.4.

[e]Incorrectly cited as YPM 21565 on p.62 and in the explanation for pl.26, f.5.

[f]Incorrectly cited as YPM 21566 on p.62 and in the explanation for pl.26, f.6.

[g]Incorrectly cited as YPM 21567 on p.62 and in the explanation for pl.26, f.7. YPM 25775 is on a slab with YPM 25781.

[h]Incorrectly cited as YPM 21568 on p.62 and in the explanation for pl.26, f.8.

[j]Incorrectly cited as YPM 21569 on p.62 and in the explanation for pl.26, f.9.

[k]Incorrectly cited as YPM 21570 on p.62 and in the explanation for pl.26, f.10.

[l]Incorrectly cited as YPM 21571 on p.62 and in the explanation for pl.26, f.11.

[m]Incorrectly cited as YPM 21572 on p.62 and in the explanation for pl.26, f.12.

[n]Incorrectly cited as YPM 21573 on p.62 and in the explanation for pl.26, f.13. YPM 25781 is on a slab with 25775.

[o]Incorrectly cited as YPM 21574 on p.62 and in the

explanation for pl.26, f.14.

***Spisula*? sp. indet.**

HYPOTYPE YPM 24438

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.126, pl.32, f.1,2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Bullhead Lithofacies. Two shell lenses 2 in thick and 8 in apart, on 12.5 ft wide and the other 8 ft wide, about 50 ft below Hell Creek, base of Iron Lightning badlands face, 3 mi S of Moreau River, and 4.1 mi SSE of Iron Lightning, Redelm NE Quad., NW CORNER SW SE SW sec33T14NR19E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24439

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.126, pl.32, f.3.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Iron Lightning Mbr, Colgate Lithofacies. Unit 1, section 2, extensive badland exposures along but principally W of head of small drainage system running N to Moreau River, and 4 mi SE of Iron Lightning, Redelm NE Quad., E W sec33T14NR19E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961 to 1962.

[a]The explanation for pl.32, f.3, should state Colgate Lithofacies instead of Bullhead Lithofacies.

***Spondylus princeps* Brod**

HYPOTYPE YPM 6708

Beecher, C.E. 1898. Am. J. Sci. v.156, p.16, tf.29.

Quaternary, Holocene. Mexico.

***Streblochondria condrai* Newell**

HOLOTYPE YPM 14476A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.86, tbl.(p.81,#L1), pl.15, f.8.[a]

PARATYPE YPM 14476B

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.86, tbl.(p.81,#R3), pl.15, f.9.[b]

PARATYPE YPM 14476C

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.86, tbl.(p.81,#L2).

PARATYPE YPM 14476D, 14476E

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.86.

PARATYPE YPM 14476F[c]

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.86.

Late Pennsylvanian, Auburn Shale, Hughes Creek Shale Mbr. Barrouin Ranch, 7-8 mi NE of Foraker, W NE sec20T5NR14E, Osage Co., Oklahoma, USA. Collector: Condra, G.E. and others.

[a]Correct repository is the Yale Peabody Museum, not Kansas University as stated in the plate explanation.

[b]Newell (1937) refers to 8 specimens but only 7 are present.

[c]A thorough search of the collections by the curatorial staff in the 1960s and 1990s could not locate this specimen. It is believed to be permanently lost.

***Streblochondria hertzeri* (Meek)**

CAST OF HYPOTYPE YPM 14475

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.82, tbl.(p.81,#R5), pl.16, f.10.[a]

Late Pennsylvanian. Lower Coal Measures, Newark, Licking Co., Ohio, USA.

CAST OF HYPOTYPE YPM 25683

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.82, pl.16, f.6.[b]

Middle Pennsylvanian, Pottsville Fm, McArthur Mbr. Moore Mine, Elk Loop, Vinton Co., Ohio, USA.

CAST OF HYPOTYPE YPM 25684

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.82, pl.16, f.12.[c]

Middle Pennsylvanian, Pottsville Fm, Mercer Mbr. Lower Mercer Limestone, Flint Ridge, Lucas Co., Ohio, USA.

[a]Incorrectly cited as YPM 14457 on p.83. Figured specimen YPM 14475 is a wax cast; the original is reposited at the Kansas University Museum.

[b]Figured specimen YPM 25683 is a wax cast; the original is Ohio St. Univ. 15246.

[c]Figured specimen YPM 25684 is a wax cast; the original is USNM 89790.

***Streblopteria oklahomensis* Newell**

PARATYPE YPM 14477A

Newell, N.D. 1937 (1938). Bull. Kans. Geol. Surv. v.10, p.88, pl.14, f.12.

PARATYPE YPM 14477B

Newell, N.D. 1937 (1938). Bull. Kans. Geol.

Surv. v.10, p.88.

Pennsylvanian, Copan Fm. Copan Shale, 5 mi NE of Copan, Oklahoma, USA. Collector: Greger, D.K.

***Streptomytilus twenhofeli* Northrop**

HOLOTYPE YPM 13343

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.201, pl.18, f.4.

Middle Silurian, Niagaran, Indian Point Fm. Eastern portion (higher in section), shore at Indian Point, Quebec, Canada. Collector: Northrop, S.A., 1927.

***Sulcatopinna ludlovi* Whitfield**
See *Pinna ludlovi* Whitfield.

***Syncyclonema halli* (Gabb)**

HYPOTYPE YPM 24122

Speden, I.G. 1967. Postilla, n.110, p.10, pl.2, f.1.

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.87, pl.18, f.1-2.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretions, bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER sec3T14NR20E, E sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24123

Speden, I.G. 1967. Postilla, n.110, p.10, pl.2, f.5.

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.87, pl.18, f.3-4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

HYPOTYPE YPM 24124

Speden, I.G. 1967. Postilla, n.110, p.10, pl.3, f.1.

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.87, pl.18, f.8.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretions, 9-ft zone from top of unit 2 to top of unit 3 of section, bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER SW NE sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961.

HYPOTYPE YPM 24125

Speden, I.G. 1967. Postilla, n.110, p.10, pl.3, f.2.

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.87, pl.18, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Concretions 1, 2, and 3, upper CAZ, ENE-trending spur 0.2 mi N of Peabody Locality C0087, and 2.2 mi SW of Green Grass, Lantry NE Quad., CENTER W EDGE SW sec26T14NR23E, CENTER E SE sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24126

Speden, I.G. 1967. Postilla, n.110, p.10, pl.2, f.2.

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.87, pl.17, f.14.

HYPOTYPE YPM 24127

Speden, I.G. 1967. Postilla, n.110, p.10, pl.2, f.4.

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.87, pl.17, f.13.

HYPOTYPE YPM 24128

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.97, pl.17, f.17.

HYPOTYPE YPM 24129

Speden, I.G. 1967. Postilla, n.110, p.10, pl.1, f.9.

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.87, pl.17, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float and in place, ferruginous concretions and ledges at top of bluff, upper 4 or 5 ft below grass roots, Timber Lake Sand lithofacies, E-facing bluffs on S side of Cannonball River, 3.3 mi E of Solen, and 5.8 mi W of Cannon Ball, Cannon Ball NW Quad., W E SE SW sec26T134NR80W, Sioux Co., North Dakota, USA. Collector: Waage, K.M. and others, 1962.

HYPOTYPE YPM 25635

Speden, I.G. 1967. Postilla, n.110, p.10, pl.3, f.4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, in gully, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 mi SSW of St.

Patrick Butte benchmark. Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.18, f.8, should state loc. A659.

***Tagelus gibbus* (Spengler)**
See *Solecurtus* sp. ind.

***Tancredia americana* (Meek and Hayden)**

Hypotype YPM 24172[a]

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.28, f.14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Tancredia* shell-bed, oriented block with valves oriented mainly concave down, section 2, E- and SSE-facing bluffs, W side of White Shirt Creek at its confluence with Grand River, Black Horse NE Quad., SE SE NW sec34T21NR23E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

Hypotype YPM 24378

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G., Speden, E.W., 1962 to 1963.

Hypotype YPM 24379
Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Tancredia* shell bed, unit 5 of section 2, roadcut on SE side of road to Bullhead, and 2.2 mi E of SD Rt. 65, and 0.1 mi W of White Shirt Creek, and 11.3 mi W of Bullhead, McIntosh SE Quad., NE SW NW sec21T21NR23E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1959 to 1962.

Hypotype YPM 24380

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.15.

Hypotype YPM 24381

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.28, f.2,4.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G., Speden, E.W., 1962 to 1963.

Hypotype YPM 24382

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.28, f.3,5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Lower 6 ft of unit 1, just below Hell Creek contact, draw NW of small banded-bed butte, badlands in NW-facing bluff, 0.5 mi S of Hump Creek and 1.2 mi E of SD Rt. 65, and 2.4 mi NE of Black Horse, Black Horse NE Quad., N NW SE sec31T21NR23E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1959 to 1962.

Hypotype YPM 24383

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.4,7, pl.28, f.6-8.[b]

Hypotype YPM 24384

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. *Dosiniopsis* association, top of section 2, at top of face, SW-facing bluff on N side of Grand River, and on 1st spur of hill on W side of Bullhead Village, Bullhead Quad., NE CORNER SW sec24T21NR24E, SW CORNER NW sec24T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.

Hypotype YPM 24385

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.16.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Lower 6 ft of unit 1, just below Hell Creek contact, draw NW of small banded-bed butte, badlands in NW-facing bluff, 0.5 mi S of Hump Creek and 1.2 mi E of SD Rt. 65, and 2.4 mi NE of Black Horse, Black Horse NE Quad., N NW SE sec31T21NR23E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1959 to 1962.

Hypotype YPM 24699

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.13.

Hypotype YPM 24700

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist.

n.33, p.113.

Hypotype YPM 24701

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.11.

Hypotype YPM 24702

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.12.

Hypotype YPM 24703

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.3.

Hypotype YPM 24704

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.6.

Hypotype YPM 24705

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.9.

Hypotype YPM 24706

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.113, pl.27, f.5.

Hypotype YPM 26382

Pannella, G. and C. MacClintock. 1968. J. Paleont. v.42, n.5, pt.2, tbl.3.

Pannella, G., C. MacClintock and M.N. Thompson. 1968. Science v.162, tbl.1.
Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.

Hypotype YPM 35091

Waage, K.M. 1968. Bull. Peabody Mus. Nat. Hist. n.27, pl.8, f.b(right).

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Tancredia-Ophiomorpha* Biofacies. Cut on E side of county road connecting SD Rt. 65 and Bullhead, near top of the hill 1 mi NW of Bullhead, Bullhead Quad., CENTER W SE SE sec14T21NR24E, Corson Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Speden, E.W., 1962 to 1963.

[a]This specimen lot is represented by approx. 12 individuals preserved in a slab.

[b]The explanation for pl.28, f.6-8, should state A1396, loc. 194 instead of A288, loc. 25.

***Tancrediopsis cuneata* (Hall)**

Hypotype YPM 22966

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.4.

Hypotype YPM 22967

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.5.

Hypotype YPM 22968

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.6.

Hypotype YPM 22969

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.7.

Hypotype YPM 22970

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.8.

Middle Ordovician, Trentonian. At Pointe Bleue on the W shore of Lake St. John, about 5 mi N of Roberval, Quebec, Canada. Collector: Beecher, C.E. and Raymond, P.E., 8/24/1903.

Hypotype YPM 22971

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.9,48.

Hypotype YPM 22972

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.10.

Middle Ordovician, Trentonian. Paquette Rapids of Ottawa River, between Allumette Island, Quebec and Ontario mainland, about 3 mi S of Waltham, Quebec, Canada. Collector: Raymond, P.E., 8/1903.

Hypotype YPM 22973

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.11.

Hypotype YPM 22974

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.12.

Middle Ordovician, Trentonian. At Pointe Bleue on the W shore of Lake St. John, about 5 mi N of Roberval, Quebec, Canada. Collector: Beecher, C.E. and Raymond, P.E., 8/24/1903.

Hypotype YPM 22975
McAlester, A.L. 1963. Postilla, n.74, p.5, tf.13,50.

Hypotype YPM 22976

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.14.

Hypotype YPM 22977

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.15,52,68.

Middle Ordovician, Trentonian. Paquette Rapids of Ottawa River, between Allumette Island, Quebec and Ontario mainland, about 3 mi S of Waltham, Quebec, Canada. Collector: Raymond, P.E., 8/1903.

Hypotype YPM 22978

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.16.

Middle Ordovician, Trentonian. At Pointe Bleue on the W shore of Lake St. John, about 5 mi N of Roberval, Quebec, Canada. Collector: Beecher, C.E. and Raymond, P.E., 8/24/1903.

Hypotype YPM 22979

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.18.

Hypotype YPM 22980

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.21,47,55,77,79.

Middle Ordovician, Trentonian. Paquette Rapids of Ottawa River, between Allumette Island, Quebec and Ontario mainland, about 3 mi S of Waltham, Quebec, Canada. Collector: Raymond, P.E., 8/1903.

Hypotype YPM 22981

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.22.

Hypotype YPM 22982

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.23.

Hypotype YPM 22983

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.24.

Hypotype YPM 22984

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.25.

Hypotype YPM 22985

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.26.

Hypotype YPM 22986

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.27.

Hypotype YPM 22987

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.28.

Hypotype YPM 22988

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.29.

Hypotype YPM 22989

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.30.

Hypotype YPM 22990

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.31.

Middle Ordovician, Trentonian. At Pointe Bleue on the W shore of Lake St. John, about 5 mi N of Roberval, Quebec, Canada. Collector: Beecher, C.E. and Raymond, P.E., 8/24/1903.

Hypotype YPM 22991

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.32,58.

Middle Ordovician, Trentonian. Paquette Rapids of Ottawa River, between Allumette Island, Quebec, and Ontario mainland, about 3 mi S of Waltham, Quebec, Canada. Collector: Raymond, P.E., 8/1903.

Hypotype YPM 22992

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.33.

Hypotype YPM 22993

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.36,44.

Hypotype YPM 22994

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.37.

Hypotype YPM 22995

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.38,45.

Middle Ordovician, Trentonian. At Pointe Bleue on the W shore of Lake St. John, about 5 mi N of Roberval, Quebec, Canada. Collector: Beecher, C.E. and Raymond, P.E., 8/24/1903.

Hypotype YPM 22996

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.49.

Hypotype YPM 22997

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.51.

Hypotype YPM 22998

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.53.

Hypotype YPM 22999

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.56,74.

Hypotype YPM 23000

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.57.

Hypotype YPM 23001

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.59,78.

Hypotype YPM 23002

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.62.

Hypotype YPM 23003

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.63.

Hypotype YPM 23004

McAlester, A.L. 1963. Postilla, n.74, p.5, tf.64,71.

Middle Ordovician, Trentonian. Paquette Rapids of Ottawa River, between Allumette Island, Quebec, and Ontario mainland, about 3 mi S of Waltham, Quebec, Canada. Collector: Raymond, P.E., 8/1903.

HYPOTYPE YPM 25950

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.21, f.1.

Late Ordovician, Martinsburg Fm. Muddy siltstone, friable, patches of lingulid fragments and phosphate nodules, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25951

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.21, f.2.

Late Ordovician, Martinsburg Fm. Sandstone and shale, high organic stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25952

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.21, f.3.

Late Ordovician, Martinsburg Fm. Muddy siltstone, friable, patches of lingulid fragments and phosphate nodules, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25953

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.21, f.4.

Late Ordovician, Reedsville Fm. Ferruginous stained sandstone, roadcut 2.5 mi SE of Clover Creek, along PA Rt. 164, Huntingdon Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25954

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.21, f.5.

Late Ordovician, Reedsville Fm. Muddy siltstone, railroad cut 1.0 mi SE of Tyrone, a few hundred yards S of PA Rt. 350, Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25955

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.21, f.6.

HYPOTYPE YPM 25956

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.21, f.7.

Late Ordovician, Reedsville Fm. Muddy siltstone, organic stains and phosphate nodules, 2 distinct fossil assemblages, *tancrediopsis* and *plectonotus* with phosphate nodules and near contact with overlying Bald Mountain sandstone, roadcut at Brumbaugh, at junction of PA Rts. 867 and 869, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25957

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.22, f.1.

Late Ordovician, Martinsburg Fm. Sandstone, ferruginous stain, massively bedded, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25958

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.22, f.2.

Late Ordovician, Reedsville Fm. Sandstone, organic stain and grey-black shale, roadcut 3.5 mi S of New Castle, along VA Primary Rt. 42, Craig Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25959

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.22, f.3.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, massively bedded, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25960
Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.22, f.4.

Late Ordovician, Martinsburg Fm. Siltstone, ferruginous stain, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25961

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.22, f.5.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, phosphate nodules, roadcut 2.5 mi E of Hightown, along US Rt. 250, Highland Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25962

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.22, f.6.

Late Ordovician, Reedsville Fm. Muddy siltstone, overlying

sandstone, ferruginous stain, roadcut 4.5 mi SE of Falling Spring, along US Rt. 220, Little Mountain, Alleghany Co., Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25963

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.23, f.1.

Late Ordovician, Martinsburg Fm. Sandstone, hard with shale partings, phosphate nodules, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25964

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.23, f.2.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, phosphate nodules, roadcut 0.5 mi W of Trimble, along Trimble-Mustoe Road, Jack Mountain, Virginia, USA. Collector: Bretsky, P.W., 7/1966.

HYPOTYPE YPM 25965, 25966

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.23, f.3.

HYPOTYPE YPM 25967

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.23, f.4.

HYPOTYPE YPM 25968

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.23, f.5.

Late Ordovician, Martinsburg Fm. Muddy siltstone, friable, patches of lingulid fragments and phosphate nodules, roadcut about 12 mi W of Franklin, along US Rt. 33, Pendleton Co., Virginia, USA. Collector: Bretsky, P.W., 8/1965.

HYPOTYPE YPM 25969

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.24, f.1.

Late Ordovician, Reedsville Fm. Sandstone and muddy siltstone, occasional shale pebble conglomerate, roadcut 1.5 mi S of Rainesburg, along unpaved PA Rt. 326, Bedford Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25970

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.24, f.2.

Late Ordovician, Reedsville Fm. Ferruginous stained sandstone, roadcut 2.5 mi SE of Clover Creek, along PA Rt. 164, Huntingdon Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

HYPOTYPE YPM 25971

Bretsky, P.W. 1970. Bull. Peabody Mus. Nat. Hist. n.34, p.113, pl.24, f.3.

Late Ordovician, Reedsville Fm. Muddy siltstone, railroad cut 1.0 mi SE of Tyrone, a few hundred yards S of PA Rt. 350, Blair Co., Pennsylvania, USA. Collector: Bretsky, P.W., 6/1966.

***Tancrediopsis*? sp.**

HYPOTYPE YPM 13341

Northrop, S.A. 1939. Spec. Pap. Geol. Soc. Am. n.21, p.197, pl.19, f.5.

Middle Silurian, Niagaran, Clemville Fm. First set of exposures between Clemville bridge and dam, Little Port Daniel River, Quebec, Canada. Collector: Northrop, S.A., 1927.

***Tapes montanensis* Whitfield**

SYNTYPE YPM 26508

Whitfield, R.P. 1876. U.S. War Dept. p.143, pl.2, f.1,2.

Whitfield, R.P. 1899. Ann. New York Acad. Sci. v.12, n.8, p.165.[a]

SYNTYPE YPM 32286–32290

Whitfield, R.P. 1876. U.S. War Dept. p.143.

Whitfield, R.P. 1899. Ann. New York Acad. Sci. v.12, n.8, p.165.

Late Cretaceous, Fox Hills Fm. Sandstone ledges nearly at the level of Box Elder Creek and almost 1 mi SW of Box Elder Station, Fergus Co., Montana, USA. Collector: Dana, E.S. and Grinnell, G.B., 7/20/1875.

[a]Designated as "type." At time of publication, specimen was reposited at the United States National Museum; it has since been acquired by the Yale Peabody Museum.

***Technophorus* cf. *T. plicatus* Kobayashi**

HYPOTYPE YPM 28677

Pojeta, J., Jr., and B. Runnegar. 1976. U.S. Geol. Surv. Prof. Pap. n.968, p.59, pl.12, f.3.

Ordovician. Anticosti Island, Quebec, Canada. Collector: Twenhofel, W.H.

***Tellina* sp. ind. A**

HYPOTYPE YPM 555

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci.

v.2, pt.1, p.201.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Tellina* sp. ind. B**

HYPOTYPE YPM 556

Nelson, E.T. 1870. Trans. Conn. Acad. Arts Sci. v.2, pt.1, p.201.

Tertiary, Miocene, Zorritos Fm. Undifferentiated Zorritos in a small block of down-faulted beds exposed near the mouth of Quebrada Tusillal, just N of the Zorritos Schoolhouse, Peru. Collector: Bradley, F.H. and Larkin, E.P., 1867.

***Tellina syriaca* Conrad**

SYNTYPE YPM 6891

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.219, pl.10, f.60.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

SYNTYPE YPM 24807

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.219, pl.10, f.61

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

SYNTYPE YPM 24898–24900

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.219.
Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

[a]Cited as a cotype.

***Tellinimera scitula* (Meek and Hayden)**

HYPOTYPE YPM 24452

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132, pl.33, f.15.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Head of gully to E of road, and 600 ft NE of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER N SW NE sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24454

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *Cucullaea* Assemblage Zone. Concretions 1, 2 and 3, upper CAZ, ENE-trending spur 0.2 mi N of Peabody Locality C0087, and 2.2 mi SW of Green Grass, Lantry NE Quad., CENTER W EDGE SW sec26T14NR23E, CENTER E SE sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24455

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132, pl.33, f.5.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. On spur 600 ft NW of prominent small butte (hill 2355) that is 0.5 mi SSW of St. Patrick Butte benchmark [also 2355], and 0.5 mi E of Moreau River, Dupree NE Quad., CENTER NE SE NW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24456

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132, pl.33, f.10,12,13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, upper Trail City Mbr, Irish Creek Lithofacies. Concretion from just above CTAZ, in surface of bench, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24458
Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132, pl.33, f.4,14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Concretion, *Protocardia*, cuts on N and S side of stock dam, 6.2 mi SSE of Kenel, Kenel Quad., SE CORNER NE NE sec20T21NR30E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.
HYPOTYPE YPM 24459

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132, pl.33, f.11.[b]

HYPOTYPE YPM 24460

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132, pl.33, f.3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. Float, small faces E of SD Rt. 63, and 3 mi S of Moreau River, and 6 mi ESE of Green

Grass, Parade NW Quad., SE sec35T14NR24E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

HYPOTYPE YPM 24461

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132, pl.33, f.8.[c]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. *Ostrea-Pteria* association concretion, 8.2 ft below banded beds, S-facing bluffs on N bank of Grand River, 1 mi NNW of Twito Ranch house, and 6 mi WSW of Black Horse, Black Horse Quad., S S SE SE sec13T20NR21E, Corson Co., South Dakota, USA. Collector: Speden, I.G. and Podwell, R.A., 1962 to 1963.

HYPOTYPE YPM 24501

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.132, pl.33, f.7,9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, upper Trail City Mbr, Irish Creek Lithofacies. Concretion from just above CTAZ, in surface of bench, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.33, f.15, should state loc. 212 instead of loc. 211.

[b]The explanation for pl.33, f.11, should state loc. 136 instead of loc. 137.

[c]The explanation for pl.33, f.8, should state *Ostrea-Pteria* association, Timber Lake Mbr, instead of ICl, TCM, *Cymbophora-Tellinimera* AZ.

***Tellinopsis subemarginata* (Conrad)**

HYPOTYPE YPM 24307

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.12.

HYPOTYPE YPM 24308

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.11.

HYPOTYPE YPM 24309

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.14.

HYPOTYPE YPM 24310

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.13.

Middle Devonian, Hamilton Grp, Skaneateles Shale, Delphi Station Mbr. Pratts Falls, about 2 mi NW of Pompey Center, Onondaga Co., New York, USA. Collector: Beecher, C.E.

HYPOTYPE YPM 24311

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.6.

Middle Devonian, Hamilton Grp. Near Pratts Falls, Onondaga Co., New York, USA. Collector: Beecher, C.E.

HYPOTYPE YPM 24312

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.8.

HYPOTYPE YPM 24313

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.7.

HYPOTYPE YPM 24314

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.9.

HYPOTYPE YPM 24315

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56, pl.1, f.10

HYPOTYPE YPM 24316–24324

McAlester, A.L. 1968. Geol. Soc. Am. Mem. n.105, p.56.

Middle Devonian, Hamilton Grp, Skaneateles Shale, Delphi Station Mbr. Pratts Falls, about 2 mi NW of Pompey Center, Onondaga Co., New York, USA. Collector: Beecher, C.E.

***Tenuipteria fibrosa* (Meek and Hayden)**

HYPOTYPE YPM 24028

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.5,6.

Speden, I.G. 1970. Postilla, n.145, p.24, pl.1, f.6.

Late Cretaceous, Maastrichtian, Montana Grp, Pierre Shale, upper Mobridge Mbr. Limestone concretion layers below upper bentonite, NW-facing bluff S of Moreau River, 0.2 mi SW of SD Rt. 63, and 2 mi NE of Green Grass, Parade NW Quad., N SE SE sec7T14NR24E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Mello, J.F., 1940 to 1960.

HYPOTYPE YPM 24029

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.8, f.12.

HYPOTYPE YPM 24030

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.8, f.14.[a]

HYPOTYPE YPM 24031

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.14.

HYPOTYPE YPM 24032

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion 1, face on SW side and at S end of SSE-trending spur at E end of Long's Ridge, and 5.5 mi W of Whitehorse, Whitehorse Quad., CENTER SE NE sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24033

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.4,11,13.

Speden, I.G. 1970. Postilla, n.145, p.24, pl.1, f.2,3.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion 2, face on SW side and at S end of SSE-trending spur at E end of Long's Ridge, and 5.5 mi W of Whitehorse, Whitehorse Quad., CENTER SE NE sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24034

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, SE side of spur, exposures on small E-trending spur, 1 mi S of Maxon Ranch house, and 2.5 mi NW of Little Eagle, Little Eagle Quad., NE CORNER NW sec18T20NR27E, NW CORNER NE sec18T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24035

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.8, f.13.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone?. Float, exposures on hill slope immediately E of E abutment of stock dam, about 0.5 mi N of Johnson Brothers Ranch house, and 6 mi S of Little Eagle, Little Eagle SE Quad., NW CORNER NE NW sec29T19NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M.

HYPOTYPE YPM 24036

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.8, f.16.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. Float, concretions, creek bottom below cut banks along Little Oak Creek, Bieber Ranch, and 7 mi SSW of Little Eagle, Little Eagle SE Quad., NE CORNER SW SE sec30T19NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1961 to 1962.

HYPOTYPE YPM 24037

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.7.

Speden, I.G. 1970. Postilla, n.145, p.24, tf.3a, pl.1,f.5.

HYPOTYPE YPM 24038

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Float and in place, outcrops and concentration of concretions in gravel, near junction of Irish Creek (Worthless Creek of some maps) and East Irish Creek, 1 mi N of Moreau River, Dupree NE Quad., NE CORNER sec29T15NR21E, NW CORNER sec28T15NR21E, SE CORNER sec20T15NR21E, SW CORNER sec21T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1940.

HYPOTYPE YPM 24039

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.2,3.

Speden, I.G. 1970. Postilla, n.145, p.24, pl.1, f.4.

Late Cretaceous, Maastrichtian, Montana Grp, Pierre Shale, upper Mobridge Mbr. Limestone concretion layers below upper bentonite, NW-facing bluff S of Moreau River, 0.2 mi SW of SD Rt. 63, and 2 mi NE of Green Grass, Parade NW Quad., N SE SE sec7T14NR24E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Mello, J.F., 1940 to 1960.

HYPOTYPE YPM 24643

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.8, f.17.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, outcrops around W end of a spur to W of prairie trail and S of stock dam, and 0.5 mi W of Peabody Locality C0247, S side of Long's Ridge, and 7.9 mi W of Whitehorse, Little Moreau Lake Quad., SE SE

NW sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24644

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.10,16.

Speden, I.G. 1970. Postilla, n.145, p.24, pl.1, f.1.

Late Cretaceous, Maastrichtian, Fox Hills Fm, lower Trail City Mbr, Little Eagle Lithofacies. Float, concretion, POAZ? or UNAZ?, outcrops, slumped in part, at toe of spur, S side of Grand River, and 8 mi SE of Little Eagle, Little Eagle SE Quad., E NW SW sec11T19NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24645

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *abyssinus-mandanensis* Biofacies. Float, concretions, on top of cut, roadcut on E side of spur and W side of old US 12 about 0.75 mi S of intersection with Wakpala Road, N side of hill with Ridgeview 1954 benchmark, and 4.5 mi S of Mahto, Wakpala NW Quad., NW SW sec15T20NR28E, SW CORNER NW sec15T20NR28E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Barker, D., 1956.

HYPOTYPE YPM 24646

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.9, f.1.

Late Cretaceous, Maastrichtian, Montana Grp, Pierre Shale, upper Mobridge Mbr. Limestone concretion layers below upper bentonite, NW-facing bluff S of Moreau River, 0.2 mi SW of SD Rt. 63, and 2 mi NE of Green Grass, Parade NW Quad., N SE SE sec7T14NR24E, Dewey Co., South Dakota, USA. Collector: Waage, K.M., Speden, I.G. and Mello, J.F., 1940 to 1960.

HYPOTYPE YPM 24647

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.8, f.18.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. Concretions, section A, 5.5 ft above base of unit 6, lot 3, exposure at toe at W end of spur, on E side of E tributary of Little Oak Creek, and 4 mi SSW of Little Eagle, Little Eagle Quad., SW SE NE sec7T19NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M., 1959.

HYPOTYPE YPM 24648

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.8, f.15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, cut on E side of second roadcut N of Little Eagle on McLaughlin-Little Eagle Road, and 3.3 mi N of Little Eagle, Little Eagle Quad., CENTER E SE sec5T20NR27E, Corson Co., South Dakota, USA. Collector: Waage, K.M. and Barker, D., 1956.

HYPOTYPE YPM 24742

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.63, pl.8, f.11.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Upper *nicolleti* Assemblage Zone. Concretion 2, inner core layer, tip of ESE-pointing spur, SW across draw from Peabody Locality C0008, Whitehorse Ridge, and 6 mi NW of Whitehorse, Whitehorse Quad., CENTER SE SE SE sec19T16NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.8, f.14, should state Lower *nicolleti* AZ instead of Upper *nicolleti* AZ.

[b]The explanation for pl.8, f.13, should state *Protocardia-Oxytoma* AZ instead ofUpper *nicolleti* AZ.

Thracia (*Corimya*) *grinnelli* Whitfield

HOLOTYPE YPM 26509

Whitfield, R.P. 1876. U.S. War Dept. p.144, pl.2, f.6,7.

Whitfield, R.P. 1899. Ann. N.Y. Acad. Sci. v.12, n.8, p.165.[a]

Late Cretaceous, Pierre Shale. Ser A, 18 in bed of hard, gray limestone, above Peabody Locality A8647, in bluff [either E or W of river] about 2 mi below [N of] camp, and just above the crossing of the Judith River [about 1 mi S of mouth], Fergus Co., Montana, USA. Collector: Grinnell, G.B. and party, 9/15/1875.

[a]At time of publication, specimen was reposited at the United States National Museum; it has since been acquired by the Yale Peabody Museum.

Titanosarcolites sp.

HYPOTYPE YPM 14892

Seilacher, A. 1998. Bivalves: an eon of evolution, p.431, tf.9A(left side, sectioned valve), B,C.

Late Cretaceous, Maastrichtian, Habana Fm. 7 km W of Ciego de Avila, Camaguey Province, Cuba. Collector: Palmer, R.H.

HYPOTYPE YPM 15072

Seilacher, A. 1998. Bivalves: an eon of evolution,

p.431, tf.9A(right side, unsectioned valve).[a]

Late Cretaceous, Maastrichtian, Habana Fm. 0.5 km S of NE end of Loma Esperanza, and 1.5 N 26 W of Central Tunicu, Santa Clara Province, Cuba. Collector: Palmer, R.H.

[a]Incorrectly cited as YPM 14892.

***Toechomya transversa* (Beushausen)**

HYPOTYPE YPM 2918A, 2918B

Newell, N.D. and D.W. Boyd. 1975. Bull. Am. Mus. Nat. Hist. v.154, art.2, f.31.

Early Devonian. Schalke, Germany. Collector: Clarke, J.M.

***Toucasia patagiata* (White)**

HYPOTYPE YPM 35762

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.6D(tooth only).[a]

HYPOTYPE YPM 35763

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.6A,B.[a]

HYPOTYPE YPM 35764

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.6C.[a]

HYPOTYPE YPM 35765

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.6D(all except tongue).[a]

HYPOTYPE YPM 38290

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7G(1 dextral juvenile in black).

HYPOTYPE YPM 69513

Seilacher, A. 1998. Bivalves: an eon of evolution, p.429, tf.7F(center).

Early Cretaceous, Fredericksburg Grp, Edwards Limestone. 200 yd S of low water bridge, E Austin Dam, Austin, Travis Co., Texas, USA. Collector: Wilson, J.L.

[a]Incorrectly cited as YPM 6908.

***Trigonia syriaca* Conrad**

SYNTYPE YPM 16951, 24912–24914

Conrad, T.A. 1852. Washington, D.C. (U.S.) Natl. Obs. p.214.

Beecher, C.E. 1900. Am. J. Sci. v.159, p.177.[a]

Cretaceous. Mt. Lebanon [Lebanon Range], Lebanon.

[a]Incorrectly cited as paratype.

undet. Bivalvia

HYPOTYPE YPM 15319

Leith, E.I. 1938. Am. J. Sci. v.236, p.344, f.7.

Ordovician, Caparo-Bellavista Series. First hill outside the Caparro River floodplain, about 3/4 mi S of the river along the trail between Santa Barbara and Mucuchachi, Andes Mountains, Venezuela. Collector: Terry, R.A.

undet. Nuculacea

HYPOTYPE YPM 24400[a]

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, pl.42, f.2.[b]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Concretion a, SW-facing exposure on SE-trending ridge, 3.5 mi ENE of Little Eagle, Wakpala NW Quad., SE NW sec13T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]This specimen lot is represented by approx. 50 individuals.

[b]Protobranch association.

undet. Rudista

HYPOTYPE USNM 11655[a]

Pannella, G. 1972. Astro. Sp. Sci. v.16, tbl.1.
No locality information available.

[a]Incorrectly published as a Yale Peabody Museum catalog number; the specimen is actually reposited at the United States National Museum.

undet. Unionoida

HYPOTYPE YPM 34666

Olsen, P.E. 1977. Field guide to the geology of the Durham Triassic Basin, f.18E.
Late Triassic, Chatham Grp. 3.5 ft thick lacustrine beds, 47.5 ft above base of section in main quarry of Triangle Brick Company, W side of NC Rt. 1630, Genlee, Durham Co., North Carolina, USA. Collector: Olsen, P.E. and Litt, Amy, 3/23/1977.

***Unio douglassi* Stanton**

SYNTYPE YPM 35547

Stanton, T.W. 1903. Proc. Am. Phil. Soc. v.42, n.173, p.195, pl.4, f.4.

Cretaceous, Benton Fm. Freshwater mollusk assemblage, ranch of Joe Wettacombe, near Musselshell River, and near Harlowton, E of Crazy Mountain, and S of Big Snowy Mountain, Wheatland Co., Montana, USA. Collector: Farr, M.S. and Silberling, A.C., 8/7/1902.

***Unio farri* Stanton**

HOLOTYPE YPM 35541

Stanton, T.W. 1903. Proc. Am. Phil. Soc. v.42, n.173, p.194, pl.4, f.1.

HYPOTYPE YPM 35542

Stanton, T.W. 1903. Proc. Am. Phil. Soc. v.42, n.173, p.194, pl.4, f.2.

HYPOTYPE YPM 35543–35546

Stanton, T.W. 1903. Proc. Am. Phil. Soc. v.42, n.173, p.194.

Cretaceous, Benton Fm. Freshwater mollusk assemblage, ranch of Joe Wettacombe, near Musselshell River, and near Harlowton, E of Crazy Mountain, and S of Big Snowy Mountain, Wheatland Co., Montana, USA. Collector: Farr, M.S. and Silberling, A.C., 8/7/1902.

***Unio* sp.**

HYPOTYPE YPM 37958

McDonald, N.G. and P.M. LeTourneau. 1988. Bull. U.S. Geol. Surv., n.1776, p.26, tf.3.

Early Jurassic, Portland Fm. Float and in place, lower middle Portland, 2-ft-thick *Unio*-bearing unit (lowest of 3 intraformational conglomerates), that pinches out eastward, near base of 40-ft-thick unit of lacustrian sandstone and shale within 400 ft section, on both sides of and in bed of 500-ft-long E-W segment of Stony Brook, westward from point about 200 ft W of CT Rt. 159 bridge, and 2 mi S40E of village of Suffield, town of Suffield, Hartford Co., Connecticut, USA. Collector: McDonald, N.G.

***Vanuxemia limbata* Raymond**
See *Ctenodonta limbata* Raymond.

***Varicorbula crassimarginata* (Meek)**

HYPOTYPE YPM 24495

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.141, pl.36, f.6,9,11-13,15.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone?. Float, concretion 1, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 mi SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24496

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.141, pl.36, f.5,8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretions derived from lower concretion layer, cut in bend on N side of Grand River, and 5 mi N of Miscol, Miscol Quad., S SE SW sec28T21NR24E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24497

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.141, pl.36, f.4,7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. At 9 in above persistent tabular layer, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 mi SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

HYPOTYPE YPM 24498

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.141, pl.36, f.10.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Upper slopes, bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER sec3T14NR20E, E sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

***Venericor aposmithii* Gardener and Bowles**
See *Cardita planicosta* (Lamarck).

***Vertumnia reversa* (Hall)**

HYPOTYPE YPM 21572

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.56, pl.24, f.3.[a]

Late Devonian, Chemung Fm, Cayuta Sandstone Mbr. Glory Hill, Tioga Co., New York, USA. Collector: Greiner, H.R., 1953.

HYPOTYPE YPM 21573

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.56, pl.24, f.5.[b]

Late Devonian, Chemungian. Roadcut exposures along NE side of NY Hwy 17 along the base of Narrow Hill,

about 1.5 mi NW of Chemung, and beginning 6.2 mi W of Waverly, PA and extending to the NW 0.5 mi, Waverly 15 min Quad., Chemung Co., New York, USA. Collector: Leith, E.I., 1931.

HYPOTYPE YPM 21574

McAlester, A.L. 1962. Bull. Peabody Mus. Nat. Hist. n.16, p.56, pl.24, f.6.[c]

Late Devonian, Chemungian. Middle middle Chemung, outcrop along bed of Hendy Creek at base of eastern extremity of Leach Hill, small interval exposed where road from village of Hendy Creeks turns SW and parallels the creek, Chemung Co., New York, USA. Collector: McAlester, A.L., 8/14/1958.

[a]Not p.62, pl.26, f.12; figured specimen is a latex cast.

[b]Not p.62, pl.26, f.13.

[c]Not p.62, pl.26, f.14.

***Whiteavisia? expansa* Raymond**

HOLOTYPE YPM 26922

Raymond, P.E. 1906. Ann. Carnegie Mus. v.3, n.4, p.578.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.337, pl.20, f.20.

Middle Ordovician, Chazy Grp. Trilobite layers, middle of Sloop Bay, Valcour Island, Clinton Co., New York, USA.

***Whiteavisia? undata* Raymond**

HOLOTYPE YPM 7988

Raymond, P.E. 1906. Ann. Carnegie Mus. v.3, n.4, p.578.

Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.337, pl.30, f.23,24.

Middle Ordovician, Chazy Grp. Valcour Island, Clinton Co., New York, USA. Collector: Raymond, P.E.

***Whitella canadensis* Raymond**

SYNTYPE YPM 26951

Raymond, P.E. 1905. Am. J. Sci. v.170, p.373.

=*Sowteria canadensis.* Whiteaves, J.F. 1908. Ott. Nat. v.22, n.6, p.112.

=*Sowteria canadensis.* Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.342, pl.29, f.12.

SYNTYPE YPM 26952

Raymond, P.E. 1905. Am. J. Sci. v.170, p.373.

=*Sowteria canadensis.* Whiteaves, J.F. 1908. Ott. Nat. v.22, n.6, p.112.

=*Sowteria canadensis.* Raymond, P.E. 1916. Ann. Carnegie Mus. v.10, n.3-4, p.342, pl.29, f.13.

Middle Ordovician, Aylmer Sandstone. Aylmer, Quebec, Canada. Collector: Sowter, T.E.

***Yoldia lacrima* Speden**

HOLOTYPE YPM 23988

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40, pl.3, f.8.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, 5.6 ft below *Limopsis* layer, face on SW side of SSE-trending spur, 1.25 mi W of E end of Long's Ridge, Long's Ridge, and 6 mi W of Whitehorse, Little Moreau Lake Quad., CENTER SE SW sec13T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 23986

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40, pl.3, f.10.[a]

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis* concretions, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. *Limopsis* concretion, concretion 2, several outcrops and small faces to SW of prairie trail, 900 ft N of Peabody Locality C0234, Long's Ridge, and 6.7 mi W of Whitehorse, Little Moreau Lake Quad., CENTER S NW SE sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 23987

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40, pl.3, f.7.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cymbophora-Tellina* Assemblage Zone. Several concretions, old 56C#1 of 1959 notebook, base of section B, 600 ft N of St. Patrick Butte benchmark, of 1962 notebook, St. Patrick Butte, at edge of upland N of Moreau River, Dupree NE Quad., NE SW SE sec23T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1959 to 1962.

PARATYPE YPM 24529, 24532–24534

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus*

concretion, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24530

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, large *Gervillia*, E-facing bluff of sharp ridge on W bank of Grand River at E-W part of bend, 2.5 mi S of Bullhead, Miscol NE Quad., CENTER NW sec6T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24531

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 2, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24535

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Protocardia-Oxytoma* Assemblage Zone. Float, concretion b, 1 ft below red-brown concretion layer, outcrops up ridge to top of bench, 2.5 mi WSW of Rattlesnake Butte, and 5.6 mi WSW of Wakpala, Wakpala NW Quad., CENTER S sec14T20NR28E, CENTER SE SW sec14T20NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1963.
PARATYPE YPM 24536

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr. Concretion, outcrops along crest of ridge, 0.6 mi E of tributary to Deep Bank Creek, and 6.5 mi N of Trail City, Wakpala SW Quad., CENTER N SE sec31T19NR28E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24537

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, *Limopsis-Gervillia* Assemblage Zone. Float, concretion, Face B, S-pointing spur at S end of exposures, 2 mi E of Goose Creek, 4 mi S of Moreau River, and 9.2 mi WNW of Ridgeview, Ridgeview NW Quad., CENTER NW SW sec29T14NR26E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1963.

PARATYPE YPM 24538, 24539

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Limopsis-Gervillia* Assemblage Zone. Layered, barrel-shaped concretion (upper *Gervillia* part = 26f and lower *Limopsis* part = 26g), E-facing bluff of sharp ridge on W bank of Grand River at E-W part of bend, 2.5 mi S of Bullhead, Miscol NE Quad., CENTER NW sec6T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24540, 24541

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24743

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.40, pl.3, f.9.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

[a]The explanation for pl.3, f.10, should state LEl, TCM, *Limopsis-Pseudoptera* AZ instead of Lower *nicolleti*.

Yoldia rectangularis Speden

HOLOTYPE YPM 23992

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41, pl.3, f.14.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *abyssinus-mandanensis* Biofacies. Float but approximately in place, concretion, 5 or 6 ft below big *Sphenodiscus* layer, exposures on NW-facing bluff and spurs below it, overlooking Moreau River, and 1.5-2 mi SW of Green Grass, Lantry NE Quad., E NE sec27T14NR23E, NW CORNER sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 23989

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41, pl.3, f.11

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. In place but slightly slumped down about 10 ft above Elk Butte, *Drepanochilus* concretion, northern of 2 collected sites, face on W side of prominent cuspate ridge, E side of Grand River, and 3 mi S of Bullhead, Miscol NE Quad., NW CORNER SE SW sec5T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 23990

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41, pl.3, f.12.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 1, face on W side of SSE-trending ridge, 450 ft N of Peabody Locality C0242, and at SW corner of Long's Ridge, and 7.5 mi W of Whitehorse, Little Moreau Lake Quad., CENTER S NE SE sec15T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 23991

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41, pl.3, f.13.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Concretions, 9-ft zone from top of unit 2 to top of unit 3 of section, bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER SW NE sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M., 1961.

PARATYPE YPM 24542

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 2, small outcrop at W end of spur, SW of prairie trail, and 900 ft NW of Peabody Locality C0239, Long's Ridge, and 6.8 mi W of Whitehorse, Little Moreau Lake Quad., NE CORNER NE NE SW sec14T15NR25E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24543

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, SE side of spur, exposures on small E-trending spur, 1 mi S of Maxon Ranch house, and 2.5 mi NW of Little Eagle, Little Eagle Quad., NE CORNER NW sec18T20NR27E, NW CORNER NE sec18T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24544

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 14, *Gervillia* association at top of LNAZ, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Carson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24545

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Bluffs S of the Moreau River, between the forks of the county roads leading NW to the village and N to the bridge, and about 1 mi SE of Thunder Butte Village, Thunder Butte Quad., CENTER sec3T14NR20E, E sec3T14NR20E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24546

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 4, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA.

Collector: Speden, I.G., 1962.

PARATYPE YPM 24547

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Timber Lake Mbr, *abyssinus-mandanensis* Biofacies. Float but approximately in place, concretion, 5 or 6 ft below big *Sphenodiscus* layer, exposures on NW-facing bluff and spurs below it, overlooking Moreau River, and 1.5-2 mi SW of Green Grass, Lantry NE Quad., E NE sec27T14NR23E, NW CORNER sec27T14NR23E, Dewey Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24548

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, in gully, SW-facing bluff, 0.1 mi E of Moreau River, and 1.1 SSW of St. Patrick Butte benchmark, Dupree NE Quad., W W SW sec26T15NR21E, Ziebach Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24549

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Irish Creek Lithofacies, *Cucullaea* Assemblage Zone. Float, concretion, from above unit 3 of section, bluffs on N side of Moreau River, about 0.75 mi SW of confluence of Irish Creek and Moreau River, and 5 mi E of Thunder Butte Village, Dupree NE Quad., CENTER sec32T15NR21E, Ziebach Co., South Dakota, USA. Collector: Waage, K.M. and Speden, I.G., 1962.

PARATYPE YPM 24550

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion, SE side of spur, exposures on small E-trending spur, 1 mi S of Maxon Ranch house, and 2.5 mi NW of Little Eagle, Little Eagle Quad., NE CORNER NW sec18T20NR27E, NW CORNER NE sec18T20NR27E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24551

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Concretion 8, SW-facing bluff on small knob 0.1 mi S of wooded gully, and 0.1 mi W of N end of NW-trending ridge, and 1.5 mi E of Grand River, and 7.2 mi E of Miscol, Miscol NE Quad., CENTER E EDGE NW NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24552

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, *Drepanochilus* concretions, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. *Drepanochilus* concretion, exposure on W side of NW-trending spur 0.1 mi S of wooded gully, 1.5 mi E of Grand River, and 7.4 mi E of Miscol, Miscol NE Quad., CENTER N NE NE NW sec23T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

PARATYPE YPM 24553

Speden, I.G. 1970. Bull. Peabody Mus. Nat. Hist. n.33, p.41.

Late Cretaceous, Maastrichtian, Fox Hills Fm, Trail City Mbr, Little Eagle Lithofacies, Lower *nicolleti* Assemblage Zone. Float, concretion, exposures along S side of Grand River, just E of small tributary gulley, and 1.2 mi ENE of Petersen Ranch house, and 4.5 mi ENE of Miscol, Miscol NE Quad., NE CORNER SW NE NW sec17T20NR25E, Corson Co., South Dakota, USA. Collector: Speden, I.G., 1962.

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